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Comments are due Wednesday, October 16, 2013 at 5:00p.m.

DRAFT SOLICITATION CONCEPTS

Alternative and Renewable Fuel and Vehicle Technology Program

Subject Area – Hydrogen Fuel Infrastructure

No proposals are being accepted at this time. This is a draft compilation of solicitation concepts. Do not design or submit proposals according to this DRAFT. The actual solicitation and station location areas are subject to change.

Comments on this DRAFT are due by ***Wednesday, October 16, 2013 at 5:00 p.m.***



<http://www.energy.ca.gov/contracts/index.html>

State of California
California Energy Commission
September 25, 2013

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INTRODUCTION

This “Draft Solicitation Concepts” document details the concepts under consideration for the next hydrogen fueling infrastructure solicitation issued by the California Energy Commission’s Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The goal of the next solicitation is to provide grant funds to projects which expand the network of publicly accessible hydrogen fueling stations to serve the current population of fuel cell vehicles (FCVs) and to accommodate the planned large-scale roll-out of FCVs in the 2015–2017 timeframe. This network will support the alternative transportation fuel and vehicle technology goals of the State of California, such as the Zero Emissions Vehicle (ZEV) Program, which requires 14% of certain auto manufacturers’ model year-2015 fleets to be zero-emission vehicles, and the Low Carbon Fuel Standard (LCFS), which is designed to reduce the carbon intensity of transportation fuels by 10 percent by 2020.

Hydrogen fueling stations must support the future deployment of FCVs and hydrogen internal combustion engine vehicles (HICEVs). The Energy Commission hopes to create an initial foundation of a statewide infrastructure network that will encourage greater FCV adoption among consumers and facilitate other hydrogen fuel providers to enter this emerging market.

No proposals for hydrogen fueling infrastructure are being accepted at this time. Readers of this document are cautioned to **NOT** design or submit proposals according to this Draft Solicitation Concepts document as the final solicitation (including station location area maps) may substantially change. Comments on this Draft Solicitation Concepts document are due by **Wednesday, October 16, 2013 at 5:00pm**. Written comments must be emailed to: docket@energy.ca.gov. Specify “**Docket 12-HYD-01**” in the subject line and include your organization’s name. Number comments consistent with this Draft Solicitation Concepts document to facilitate effective evaluation.

This Draft Solicitation Concepts document places a strong preference on market viability and performance for proposed hydrogen fueling stations. Major changes (relative to PON-12-606) are noted throughout this document in bold-faced, italicized text.

NOTE: Potential applicants (to the next funding solicitation) are strongly encouraged to discuss their proposed project(s) with the automotive original equipment manufacturers (OEMs), site owners, station owners, station operators, and other key project partners. To the greatest extent possible, potential applicants are strongly encouraged to begin discussions with key project partners and not wait for the final solicitation to be released. Proposals demonstrating and documenting cooperation and commitments among key project partners are strongly encouraged and expected to be more competitive under the next funding solicitation. However, potential applicants are cautioned that the final solicitation may differ from this Draft Solicitation Concepts document. The Energy Commission cannot guarantee that an eligible project under this document will be eligible under the final solicitation.

The draft solicitation concepts are:

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1. Available Funding

Up to \$29.9 million is available under this solicitation. The Energy Commission, at its sole discretion, reserves the right to increase or reduce the amount of funds available under this solicitation.

2. Maximum Award

The three different Maximum Awards shall be awarded in the following sequence:

- A. Renewable Hydrogen Set-Aside (see Concept #13): Projects funded through the Renewable Hydrogen Set-Aside are eligible for up to 80% of the total project costs or \$2.80 million, whichever is less. ***Percentage and funding amount increased relative to PON-12-606.***
- B. Mobile Refueler Set-Aside (see Concept #14): Projects funded through the Mobile Refueler Set-Aside are eligible for 80% of the total project costs, or \$1.0 million, whichever is less. ***New concept relative to PON-12-606.***
- C. Station Location Area and Unassigned Station Competitions: Projects under these competitions are eligible for up to 70% of the total project cost or \$1.75 million, whichever is less. ***Percentage and funding amount increased relative to PON-12-606.***

3. Early Completion Bonus

All projects are eligible for a 10 percent Early Completion Bonus if the awarded hydrogen fueling station is constructed, operational, and dispensing hydrogen in compliance with the Minimum Technical Requirements (see Concept #11) within one year following the execution of the Energy Commission agreement. Awarded projects meeting the requirements for this bonus will be eligible for an additional 10% of grant funding above the Maximum Award amounts (see Concept #2) along with a commensurate reduction in the required match share requirement. ***New concept relative to PON-12-606.***

4. Late Project Penalty

All projects are subject to a 5 percent Late Project Penalty if the awarded hydrogen fueling station is not constructed, operational, and dispensing hydrogen in compliance with the Minimum Technical Requirements (see Concept #11) within 18 months following the execution of the Energy Commission agreement. Awarded projects subject to the penalty will have the Energy Commission grant award reduced by 5%. Funding recipients subject to the Late Project Penalty will be required to complete the project with less state funding. ***New concept relative to PON-12-606.***

5. Agreement Execution Deadline

Funding agreements must be fully executed by the funding Recipient within 120 days of project approval at an Energy Commission business meeting. If this deadline is missed,

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the Energy Commission reserves the right to cancel the award and award funds to the next eligible project. ***New concept relative to PON-12-606.***

6. Limit of One Station per Proposal

Proposals shall be limited to one hydrogen fueling station per proposal. However, Applicants are encouraged to identify back-up station locations (see Concept #7).

7. Back-up Sites for Hydrogen Fueling Station Proposals

Applicants are encouraged to identify back-up station locations within their proposal. Back-up sites must be ***within*** a 6 minute drive time (according to UCI's STREET model) from the primary station contained in the proposal. Proposals (including the letter(s) of support/commitment) must identify and reflect the primary, intended, and targeted primary station address.

Back-up station locations must have the same performance and technical specifications of the primary station. The Energy Commission will consider funding back-up stations if the primary station is disqualified in accordance with this solicitation. Regardless, only one station will be funded per proposal.

New concept relative to PON-12-606.

8. Single Applicant Cap

To promote market diversity, a single Applicant is eligible for no more than 60% of the total funds awarded under this solicitation. This is referred to as the "Single Applicant Cap." The Energy Commission reserves the right to modify or eliminate this cap if necessary. ***Cap increased relative to PON-12-606.***

9. Operational Date

All proposals must demonstrate that the proposed hydrogen fueling station will be operational by October 30, 2015.

10. Eligible Projects

The requirements for eligibility apply to all Proposals. To be eligible under this solicitation, projects must:

- Be located in California.
- Be publicly accessible (meaning the project must sell fuel without the use of access, liability, or user contracts for either corporate customers/partners or individual consumer access).
- Meet the Minimum Technical Requirements (see Concept #11).
- Include one or more of the following:
 - Installation of new hydrogen dispensing equipment.
 - Upgrade/refurbishment of existing hydrogen dispensing equipment.

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- Installation of equipment for the on-site production and dispensing of hydrogen fuel.
- Refueling on a mobile basis.

Changes relative to PON-12-606:

- 1) Station Location Areas are optional and not required.***
- 2) Co-location with an existing gas station is optional and not required.***
- 3) Mobile refueling is added.***

11. Minimum Technical Requirements

To be eligible under this solicitation, proposed hydrogen fueling stations must, at a minimum, meet each of the following minimum technical requirements. Projects exceeding minimum technical requirements will score higher in accordance with the scoring criteria.

- A. ***Hydrogen Quality:*** The station(s)/dispenser(s) shall meet the requirements in the Society of Automotive Engineers (SAE) International J 2719 - 2011 Hydrogen Fuel Quality for Fuel Cell Vehicles (www.sae.org). The hydrogen fueling stations must undergo bi-annual hydrogen purity tests to demonstrate compliance with SAE J 2719 - 2011.
- B. ***Fueling Protocols:*** The station(s)/dispenser(s) shall meet SAE International J 2601 Technical Information Report (TIR): 2010, Fueling Protocols for Light Duty Gaseous Hydrogen Surface Vehicles (www.sae.org). This includes the general requirements for operating conditions and hydrogen fueling protocols of light duty fuel cell vehicles (FCVs) in SAE TIR J 2601.

The station(s)/dispenser(s) shall use the Canadian Standards Association (CSA) Hydrogen Gas Vehicle (HGV) 4.3 (CSA HGV 4.3:2012), Test Methods for Hydrogen Fueling Parameter Evaluation and related devices, if available, as a test method and equipment specification to confirm that the performance of a station/fuel dispenser is consistent with SAE TIR J2601 (www.csagroup.org). The use of an equivalent testing method and device is also acceptable if method and device are described in the Applicant's narrative.

- C. ***Minimum Station Daily Fueling Capacity:*** Each station shall have a minimum average daily fueling capacity of no less than 100kg. The average daily station capacity (kg/day) shall be the total kg of hydrogen that can be delivered to 7 kg-capacity vehicles according to the SAE TIR J 2601, over a 12 hour period.
- D. ***Minimum Peak Fueling Capacity:*** Three 7-kg Type A for 70 MPa and three 7-kg Type B for 35 MPa (as defined in SAE J 2601) fills per hour. Station must be able to fuel vehicles in accordance with this standard in a single one hour period, back-to-back, without the vehicle user having to wait for the station to recharge.

- E. **Dual Dispenser Pressure:** Each hydrogen fueling station shall dispense fuel at both 700 bar and 350 bar and provide Type A for 70 MPa and Type B for 35 MPa fueling according to SAE TIR J 2601, 2013 Fueling Protocol.
- F. **Hydrogen Dispensing:** The Applicant must demonstrate the ability to dispense hydrogen per “Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices” as adopted by the 97th National Conference on Weights and Measures 2012, U. S. Department of Commerce, National Institute of Standards and Technology (NIST), Handbook 44: 2013. Hydrogen dispenser performance specifications should satisfy NIST Handbook 44: 2013, unless superseded by California Department of Agriculture (CDFA), Division of Measurement Standards Rulemaking: California Code of Regulations (CCR) 3.39 “Hydrogen Gas-Measuring Devices -- Tentative Code” (as proposed for replacement through public review processes).
- G. **Renewable Hydrogen:** Proposals must demonstrate compliance with the minimum Renewable Hydrogen Requirements (see Concept #12).

Changes relative to PON-12-606:

- 1) **The minimum peak fueling capacity is reduced.**
- 2) **Bi-annual testing for hydrogen purity is added.**

12. Renewable Hydrogen Requirements

Applicants must provide a plan for dispensing at least 33% renewable hydrogen through direct physical pathways. Proposals shall specify the percentage of renewable hydrogen to be dispensed at each location and describe in adequate detail how each station or portfolio of awarded stations expect to dispense at least 33% of renewable hydrogen on a per kilogram basis over the applicant’s entire portfolio of Energy Commission funded stations (this can include previously funded agreements) through direct physical pathways from “well to wheel.”

All Applicants (including those competing for the Renewable Hydrogen Set-Aside funds) must explain their plan to meet their renewable hydrogen requirements.

Proposals must include information about the source of the feedstock(s) and/or process electricity; how the feedstocks will be processed into fuel; and how the fuel will be transported, stored, and ultimately dispensed at the proposed station(s). If the primary process energy for hydrogen production is electricity (e.g., for electrolysis), Applicants must describe a direct source of eligible renewable electricity or source of renewable energy certificates (RECs) that are registered and verifiable through Western Renewable Energy Generation Information System (WREGIS) or an equivalent tracking and verification system. Further information about WREGIS can be found at:

www.wecc.biz/WREGIS.

The Energy Commission will verify whether the renewable hydrogen requirement is met. For each station, Applicants must submit the following information: Year, name of pathway, amount of hydrogen dispensed annually per station (in kilograms), biogas/renewable feedstock (in standard cubic feet), and renewable electricity (in kilowatt hours).

Applicants must account for the possibility that not every Proposal it submits will be recommended for funding. Therefore, Applicants must describe whether and how their renewable hydrogen plan would change depending on the number and location of stations ultimately awarded. Please also include information about whether and how costs might change depending on the portfolio of stations ultimately awarded grant funding. For example, the Applicant shall specify whether different technologies or more expensive equipment would be used depending on the combination of stations awarded.

13. Renewable Hydrogen Set-Aside Competition

The Renewable Hydrogen Set-Aside Competition will occur before the Mobile Refueler Set-Aside Competition. Proposals submitted and eligible for the Renewable Hydrogen Set-Aside Competition will be scored and ranked according to score. Eligible proposals achieving a passing score will be recommended for funding in ranked order until funds in this set-aside have been exhausted.

Proposals eligible for the Mobile Refueler Set-Aside Competition (see Concept #14) are **not** eligible for the Renewable Hydrogen Set-Aside.

Of the funding available, up to \$2.8 million is designated for stations that will dispense 100% renewable hydrogen fuel on-site or off-site. Projects under this set-aside are eligible for up to 80% of the total project cost or \$2.80 million, whichever is less.

Projects funded under this set-aside...

- ...count towards the 60% Single Applicant Cap (see Concept #8).
- ...must meet all solicitation eligibility requirements including the Minimum Technical Requirements (see Concept #11) and Operational Date requirement (see Concept #9).
- ...are eligible for the Early Completion Bonus (see Concept #3).
- ...are subject to the Late Project Penalty (see Concept #4).
- ...are eligible to receive Operation and Maintenance Support Costs (see Concept #18)

If the Renewable Hydrogen Set-Aside funding is insufficient to fund all eligible and passing 100% renewable hydrogen fueling station proposals, proposals not funded under this set-aside will proceed to compete under the either the Station Location Area

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Competition (see Concept #15) or Unassigned Station Competition (see Concept #16) as appropriate.

If an insufficient number of eligible and passing 100% renewable hydrogen station proposals are received to fully utilize the Renewable Hydrogen Set-Aside funding, the Energy Commission reserves the right to award the remaining Renewable Hydrogen Set-Aside funds to other eligible proposals under this solicitation.

Applicants applying for this Set-Aside must certify that their proposed project is eligible by checking the appropriate box and signing the Application Form.

14. Mobile Refueler Set-Aside Competition

The Mobile Refueler Set Aside Competition will occur after the Renewable Hydrogen Set-Aside Competition. Proposals submitted and eligible for the Mobile Refueler Set-Aside Competition will be scored and ranked according to score. Eligible proposals achieving a passing score will be recommended for funding in ranked order until funds in this set-aside have been exhausted.

Of the funding available, up to \$1.0 million is designated for mobile hydrogen refuelers. Projects under the Mobile Refueler Competition are eligible for 80% of the total project cost, or \$1,000,000, whichever is less. The intent of this set-aside is to fund at least one mobile refueler that can provide temporary hydrogen refueling throughout California.

Mobile refuelers shall be capable of...

- ...providing temporary hydrogen refueling capability at hydrogen fueling stations that go off-line for any reason.
- ...being available to serve as a back-up hydrogen refueling option for the existing and planned hydrogen fueling stations within California.
- ...being mobile in order to serve multiple locations on an as-needed basis.

Proposals funded under this set-aside...

- ...count towards the 60% Single Applicant Cap (see Concept #8).
- ...must meet all solicitation eligibility requirements including the Minimum Technical Requirements (see Concept #11) and Operational Date requirement (see Concept #9).
- ...are **NOT** eligible for the Early Completion Bonus (see Concept #3).
- ...are subject to the Late Project Penalty (see Concept #4).
- ...are eligible to receive Operation and Maintenance Support Costs (see Concept #18)

New concept relative to PON-12-606.

15. Station Location Area Competition

The Station Location Area Competition will occur after the Mobile Refueler Set-Aside Competition. All proposals with stations that are within or assigned to a Station Location Area will be scored and ranked according to score.

- A. **Station Location Areas are Optional:** Proposed stations do **NOT** need to be within the boundaries of a Station Location Area to be eligible for funding under this solicitation.

The Station Location Areas reflect the Energy Commission's targeted, higher priority areas for the construction of hydrogen fueling infrastructure. Based on the California Fuel Cell Partnership Roadmap, 68 stations are needed throughout the State of California to ensure a robust network hydrogen fueling infrastructure in anticipation of the commercial deployment of fuel cell vehicles (FCVs). The Station Location Areas allow the Energy Commission to ensure that funded stations contribute to this robust network.

The Station Location Areas were generated by a process designed and applied by the Advanced Power and Energy Program (APEP) at the University of California at Irvine (UCI). They include demographic data such as median household income, population density, gasoline station locations, vehicles per household, proximity to freeways, and proximity to highways.

- B. **Bonus Points:** Proposed hydrogen fueling stations located within the actual boundaries of a Station Location Area will receive bonus points. Proposed stations assigned to, but not actually within, the Station Location Area boundary are not eligible for bonus points. Bonus points **cannot** be used to achieve the minimum passing score under this solicitation.

- C. **Primary Priority Station Location Areas:** Proposed stations within the following Station Location Areas will receive 20 bonus points to their final score:

- Beverly Hills/Westwood
- Hollywood/West Hollywood/Melrose
- Pasadena
- San Diego #1
- San Francisco
- Torrance/Redondo Beach
- Westminster/Huntington Beach

- D. **Secondary Priority Station Location Areas:** Proposed stations within the following Station Location Areas will receive 15 bonus points to their final score:

- Berkeley/Oakland
- Dublin/Pleasanton
- Hayward

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- Laguna Beach
- Los Altos/Los Altos Hills/Palo Alto
- Los Gatos
- Manhattan Beach/El Segundo
- Milpitas
- Pacific Palisades
- Sacramento
- San Diego #2 (La Jolla)
- San Clemente
- Santa Barbara
- Woodside/Menlo Park/Atherton/Redwood City

E. ***Assignment to Station Location Area:*** Proposed stations not physically located within the actual boundaries of a Station Location Area will be analyzed to determine whether the proposed station is assigned to a specific Station Location Area. The assignment, if any, will be based on:

- Shortest drive time to the Point of Origin within a Station Location Area according to UCI's STREET model.
- Proposed hydrogen fueling stations that have greater than a 20 minute drive time (according to UCI's STREET model) to any Station Location Area Point of Origin will not be assigned to a Station Location Area and will compete under the Unassigned Station Competition (see Concept #16).

F. ***Station Location Area Competition Guidelines:*** The Energy Commission will evaluate and recommend for funding proposals utilizing the following guidelines:

- Proposals will be scored in accordance with the scoring criteria.
- To be eligible for funding, projects must achieve the minimum passing score prior to the application of any bonus points.
- Proposed hydrogen fueling stations within the boundaries of a Station Location Area will receive bonus points for their proposal.
- Proposals will be ranked according to score after the application of bonus points.
- Only one hydrogen fueling station will be funded per Station Location Area. Once a station is awarded under a Station Location Area (whether within the boundaries or assigned), all remaining proposals competing for that Station Location Area will be disqualified and no longer eligible for funding.
- Once an Applicant exceeds the Single Applicant Cap (see Concept #8), remaining proposals from the Applicant will be disqualified and not

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eligible for funding. The Energy Commission reserves the right to modify or eliminate this cap if necessary.

- Hydrogen fueling stations must be separated by 6 minutes or more drive time (according to UCI's STREET model) from existing, planned or newly proposed stations.
- Proposed hydrogen fueling stations falling within the 6 minute drive time from existing or planned stations will be disqualified and not eligible for funding.
- Proposed hydrogen fueling stations that fall within the 6 minute drive time from other newly proposed stations will be recommended for funding based on the highest overall final proposal score (including bonus points).
- Ties, if any, will be broken in the following order:
 - Proposal with highest "Market Viability" score.
 - Proposal with highest "Hydrogen Fueling Station Performance" score.
 - Proposal with highest renewable hydrogen content.
 - If still tied, an objective tie-breaker will be utilized.
- Proposals will be recommended for funding in ranked order until funds in this solicitation have been exhausted.

- G. ***Determining Location of a Proposed Hydrogen Fueling Station:*** To determine whether a proposed hydrogen fueling station is: 1) inside a Station Location Area; 2) assigned to a Station Location Area; or 3) is within 6 minutes drive time to an existing or planned hydrogen fueling station, Applicants may contact the UCI STREET team at bps@apep.uci.edu or (949) 824-7302, ext. 11-127.

Applicants will **not** know whether their proposed station is within the 6 minute drive time of newly proposed stations since locations of newly proposed projects are confidential until the release of the Notice of Proposed Awards.

The UCI STREET team will answer requests on a first come, first served basis. Further, the UCI STREET team will hold the information provided by the potential Applicant confidential and return results within approximately one week.

If the Applicant has contacted the UCI STREET team to obtain GIS coordinates for their proposed station location, documentation of this communication from the UCI STREET team should be included in the proposal. Any discrepancies between information submitted by the Applicant and the Energy Commission's analysis related to location scoring will be resolved by the Energy Commission and scored based solely on Energy Commission analysis and results in consultation with UCI.

Changes relative to PON-12-606:

- 1) Station Location Areas are optional.***

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- 2) *Bonus points added for proposed stations within Station Location Areas.*
- 3) *Energy Commission reserves right to select one station within a 6 minute drive time from one another.*
- 4) *Proposed stations beyond a 20 minute drive time from any Station Location Area Point of Origin compete under the Unassigned Station Competition.*

16. Unassigned Station Competition

If funding remains available, the Unassigned Station Competition will occur after the Station Location Area Competition. All proposals with stations that are not within the boundaries of, or assigned to, a Station Location Area will be scored and ranked according to score. Eligible proposals achieving a passing score will be recommended for funding in ranked order until funds in this solicitation have been exhausted.

The Energy Commission will evaluate and recommend for funding proposals utilizing the following guidelines:

- Proposals will be scored in accordance with the scoring criteria.
- Once an Applicant exceeds the Single Applicant Cap (see Concept #8), remaining proposals from the Applicant will be disqualified and not eligible for funding. The Energy Commission reserves the right to modify or eliminate this cap if necessary.
- Hydrogen fueling stations must be separated by 6 minutes or more drive time (according to UCI's STREET model) from existing, planned or newly proposed stations.
- Proposed hydrogen fueling stations falling within the 6 minute drive time from existing or planned stations will be disqualified and not eligible for funding.
- Proposed hydrogen fueling stations that fall within the 6 minute drive time from other newly proposed stations will be recommended for funding based on the highest overall final proposal score.
- Ties, if any, will be broken in the following order:
 - Proposal with highest "Market Viability" score.
 - Proposal with highest "Hydrogen Fueling Station Performance" score.
 - Proposal with highest renewable hydrogen content.
 - If still tied, an objective tie-breaker will be utilized.
- Proposals will be recommended for funding in ranked order until funds in this solicitation have been exhausted.

17. Match Share Funding Requirements

The balance of the project cost beyond the Energy Commission grant is the Applicant's required match share this is also referred to as "match funding." Proposals competing under the Renewable Hydrogen Set-Aside Competition and Mobile Refueler Set-Aside Competition must provide a minimum match share of 20% of the total project costs.

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Applicants competing under the Station Location Area Competition and Unassigned Station Competition must provide a minimum match share (“match funding”) of 30% of the total project costs.

Match share funding is calculated as follows: if a proposed project has a total project cost of \$2,500,000, a 30% minimum match share funding requirement is \$750,000 (\$2,500,000 x 30%).

Proposals with a greater percentage of the total project costs in match share funding will be scored higher than those with lower match share funding. The following applies to match share funding:

- A. All match share expenditures must conform to the requirements in the terms and conditions of the grant agreement. Grant recipients will be required to document and verify all match share expenditures, and provide a synopsis of project progress in the monthly progress reports and invoices to the Energy Commission after grant execution.
- B. Applicants must disclose the source and provide verification and documentation for the match share funding.
- C. Match share funding may be in the form of cash and/or in-kind contributions such as donated labor hours, equipment, facilities, and property. Equipment, facilities (e.g., laboratory space), and most property may count as match funds as long as the value of the contribution is based on documented market values or book values, prorated for its value to the project, and depreciated or amortized over the term of the project using standard accounting principles.
- D. Funding from other non-state government agencies may be used as match share.
- E. Funding recipients are allowed to incur match share expenditures only after the Energy Commission notifies the Applicant that its project has been proposed for an award through the release of a Notice of Proposed Awards (NOPA). Match expenditures incurred prior to the full execution of a funding agreement are at the Applicant’s own risk. The Energy Commission is not liable for Applicant’s incurred match share costs if the grant is not approved, if approval is delayed, or if the match share expenditure is not allowable under the terms and conditions of the grant or applicable federal cost principles incorporated by reference into the agreement.

Decreases match share contribution relative to PON-12-606.

18. Operation and Maintenance Support Costs

The Energy Commission will provide funding for equipment, construction, labor, and limited Operation and Maintenance (O&M) costs associated with developing a hydrogen fueling station. O&M Support Costs are in addition to the Maximum Award amounts (see Concept #2).

- A. **Eligibility:** This funding is available to all publicly accessible hydrogen fueling stations operating in California. Proposals requesting O&M support must demonstrate through documentation the need for state-funded O&M support. To be eligible for O&M funding, operational hydrogen fueling stations must meet the Minimum Technical Requirements of the solicitation under which the station was originally funded.
- B. **O&M Funding Amount:** Each eligible hydrogen fueling station can apply for O&M funding support for up to three years as follows:

<i>Actual Station Operational Date</i>	<i>Max. % Reimbursement for Eligible O&M Costs</i>	<i>Max. Annual O&M Funding Support</i>	<i>Max. Term for O&M Funding Support</i>
October 30, 2015	100%	\$100,000	October 30, 2018
April 30, 2016	80%	\$80,000	October 30, 2018
October 30, 2016	60%	\$60,000	October 30, 2018

- C. **Eligible O&M Costs:** Eligible O&M costs must fall within the following definitions and requirements (for purposes of this provision, “property,” “real property,” “personal property,” and “construction” are as defined in the California Revenue and Tax Code and implementing regulations. See http://www.leginfo.ca.gov/.html/rtc_table_of_contents.html).
1. Maintenance of equipment purchased under the agreement that is reasonably necessary to keep the equipment in efficient operating condition, from the date of delivery until the end of the agreement, only if the maintenance does not add permanent value or appreciably prolong the equipment’s intended life.
 2. Insurance on equipment purchased under the agreement, from the date of delivery until the end of the agreement, only if:
 - insurance does not protect the Recipient against the cost of its own defects in materials or workmanship;
 - coverage for loss, damage, destruction, or theft of the equipment does not limit or eliminate the Recipient’s liability for such loss under the grant agreement;

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- coverage does not include loss, damage, destruction, or theft which results from the willful misconduct or lack of good faith on the part of any of the Recipient's ownership or managerial personnel;
 - coverage does not include lost profit;
 - coverage does not exceed the cost of acquisition, unless the Recipient has a formal written policy that assures that the property, if converted, will be valued at the book value of the replaced asset plus or minus the difference between the insurance proceeds and the actual replacement costs;
 - costs are consistent with competitive insurance prices;
 - insurance does not protect the Recipient from the Commission; and,
 - insurance is equivalent to the insurance that the Recipient maintains for similar equipment not purchased under the Agreement.
3. Overhead and administrative costs on the above items.
4. Operations and Maintenance costs not expressly included in this section, such as, but not limited to, personal property taxes or permitting fees, are not allowable under any resulting agreement.

Costs under a resulting agreement are allowable if they are reasonable, allocable, and appropriate to the project as determined under applicable federal cost principles. Costs must be documentable, measurable and non-duplicative of other reimbursed or match share costs. For purposes of this provision, sections 31.201-2, 31.201-3, and 31.201-4 of Title 48 of the Code of Federal Regulations (CFR) are expressly incorporated by reference.

- D. **Documentation of O&M Costs:** Recipients of O&M funding support must provide adequate documentation substantiating the actual eligible O&M costs incurred for the hydrogen fueling station. The Energy Commission will only approve reimbursement for O&M costs adequately documented.
- E. **Data Collection:** O&M funding Recipients shall collect data and submit the data to the Energy Commission throughout the time O&M support is received.

Changes relative to PON-12-606:

- 1) **O&M funding support is in addition to infrastructure grant funds.**
- 2) **Incentivizes earlier station construction.**
- 3) **Allows O&M funding support for existing, planned and newly proposed hydrogen fueling stations.**

19. Screening Criteria

Proposals will be screened according to the following criteria. Proposals not meeting one or more of the following requirements will be disqualified and not eligible for funding:

- A. Applicant is eligible to apply under this solicitation.
- B. Proposed project is eligible in accordance with this solicitation.
- C. Proposed project meets or exceeds the Minimum Technical Requirements (see Concept #11).
- D. Applicant receives at least 21 points (70% x 30 points maximum) under the Qualifications of Applicant/Project Team scoring criterion (see Concept #20).

New concept relative to PON-12-606.

20. Scoring Criteria and Points

Summary of the Scoring Criteria and Points:

1.	Qualifications of Applicant/Project Team.....	30 points
2.	Market Viability	90 points
3.	Project Readiness	40 points
4.	Project Implementation.....	40 points
5.	Project Budget	40 points
6.	Economic Benefits	20 points
7.	Hydrogen Fueling Station Performance.....	70 points
8.	Innovation.....	20 points
9.	Sustainability	30 points

Total Maximum Points: 380 points (not including bonus points)

Minimum Passing Score: 266 points (70%) (bonus points cannot be used to achieve minimum passing score).

Qualifications of the Applicant/Project Team (30 points): Applicants must achieve a minimum of 70% (or 21 points) to be eligible for funding. Proposals will be evaluated on the degree to which...

- The project team's qualifications including relevant expertise, experience, and skill sets as they apply to performing the tasks described in the proposed Scope of Work. Project teams with better qualifications will score higher and those with no applicable experience will receive zero points.
- Demonstrated ability to work, as a team player, in a technical team that strives to meet technical objectives of the proposed project.
- Demonstrated ability to work with the current hydrogen fueling technology or other gaseous fuels as evidenced by disclosure of the details of the Applicant's role working on stations in the past including the dates, locations, and fuels dispensed.
- Demonstrated ability to meet deadlines and milestones of large scale fueling projects.

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- Demonstrated ability in logistics management that is relevant to a hydrogen fueling station.
- Demonstrated ability to transition research and development techniques and apply them with a hydrogen fueling station for commercialization.
- The amount and success of the team's recent work or projects as it relates to the Scope of Work of the Proposal.
- Knowledge and understanding, demonstrated by specific examples of past projects, of the State of California's overall hydrogen fueling infrastructure and how the proposed hydrogen fueling station works within the infrastructure.

Market Viability (90 points): Proposals will be evaluated on the degree to which...

- The daily fueling capacity and peak fueling capacity of a proposed station exceed the minimum capacity requirements.
- The capacity and cost (including fuel pathway) is suitable for the proposed station location over time. Stations with capacities and costs more suitable to their proposed station location will score higher.
- The hydrogen fueling stations will work with the network of existing and planned fueling stations. Stations with a greater impact in terms of ability to serve the consumer, ability to reliably meet the fill needs for the demand of vehicles, and exhibit a plan for viable, continuous improvement to service the consumer and meet the fill needs will score higher.
- The project plan describes the business opportunities and business climate. Further, the extent to which the project plan includes the anticipated cost to the customer per kilogram of each station's operation for three to five years after station installation. Applicants with a more complete and stronger project plan will score higher.
- The Applicant documents a higher potential demand for hydrogen fueling at the location of each station. This could be documented by letters of support from: automobile original equipment manufacturers (OEMs), local car dealerships, potential customers, local government agencies, or other related parties, third party analysis, and/or relationship to the Station Location Areas provided in this solicitation. More detailed documentation that indicates higher demand will score higher.

Project Readiness (40 points): Proposals will be evaluated on the degree to which...

- The Proposal demonstrates that the project is consistent with existing zoning. Proposals that demonstrate they are located in areas that already allow the proposed use will score higher.
- Permitting that may be required for the project has been completed and the permitting schedule ensures successful project completion within the timeframes specified in this solicitation. Projects with existing permits and/or submitted permit applications will score higher.
- The project has progressed in obtaining compliance under the California Environmental Quality Act (CEQA). Projects in the process of CEQA review, or those that have

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completed CEQA review will score higher. Projects location in existing fueling stations will be scored higher.

- The proposed project schedule is reasonable and installation can be complete on or before October 30, 2015. Projects that can be installed more quickly will score higher.
- Outreach to the community, including fire marshals, is planned to educate the public about the potential hydrogen fueling facility. Applicants with a more thorough plan will score higher.
- Operational data is accessible by emergency response call centers.
- Correspondence demonstrates that the gas station site's representative has committed to operating the hydrogen fueling station.
- Proposal demonstrates and documents site control (including but not limited to lease or access rights) needed to design the station; to install equipment and storage tanks; and for the entrance, exit and parking of vehicles to the proposed station property. Proposals documenting lease or access rights and demonstrates cooperation and commitment by the site owner will score higher.

Project Implementation (40 points): Proposals will be evaluated on the degree to which...

- The station provider will implement a maintenance plan. Agreements that cover station maintenance for at least 3 years, include response to station maintenance/service issues within 12 hours and a 24-hour, toll-free service telephone will score higher.
- The Applicant provides a plan to assure proper training and retraining over time, as practicable, for all station operators.
- The station provider will implement procedures to maximize "up-time" to meet fill requests. Proposals that describe procedures to support station "up-time" will score higher.
- The station provider will implement procedures to monitor the station. Proposals that describe procedures to monitor the station will score higher.
- The Proposal demonstrates that the proposed project will be completed in an effective and efficient manner.
- The schedule, sequence of tasks, and appropriate objectives of the proposed project are clear, complete, and logical.
- The scope of work is complete and includes plans to implement the data collection requirements as described in the Scope of Work Template (to be attached in the Final Solicitation). More completely planned projects that demonstrate a higher degree of potential success for project implementation will score higher.

Project Budget (40 points): Proposals will be evaluated on the degree to which...

- Stations have a lower average cost per kg of hydrogen. Stations with a lower average cost per kg of hydrogen will score higher.
- The proposed station's project budget and cost are reasonable and suitable for the station's capacity.

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- The proposed match share exceeds the minimum match share requirements specified in the solicitation. Proposals with higher match share percentages and commitments will score higher.
- State funds are necessary for the installation of the proposed project. Stations that articulate a greater need for state funds will score higher.

Economic Benefits (20 points): Proposals will be evaluated on the degree to which...

- The proposed project will expand business opportunities for California-based businesses. Proposals that provide greater California economic benefits will score higher.
- The proposed project creates jobs including the quantity, skill level(s), and locations of temporary and/or permanent jobs created as a result from the proposed hydrogen fueling station.
- The proposed project results in greater tax revenues from the station and jobs created (direct and indirect).

Hydrogen Fueling Station Performance (70 points): Proposals will be evaluated on the degree to which...

- The proposed station exceeds the minimum station capacity of 100 kg/day. Projects exceeding minimum station capacity will score higher.
- Projects demonstrate the ability to increase the amount of hydrogen they dispense to 140 kg/day or more within 18 months from the beginning of station operation.
- The proposed station exceeds the minimum peak fueling rate: three 7 kg Type A70 MPa and three 7 kg Type B35 MPa (SAE J2601). Stations with a higher peak capacity will score higher.
- The proposed station has the ability to serve the expected daily traffic count (DTC) or the amount of vehicles passing the station per day, per week, or for the time period during which the planned station will remain open and has higher average number of fills over both a one hour and 12-hour period. Projects demonstrating the ability to service expected DTC will be scored higher.
- The proposed station provides retail-like characteristics. Stations with more, effective retail-like characteristics will score higher. Retail-like characteristics including, but are not limited to:
 - Lighting.
 - Unobstructed ingress/egress to the fueling facility.
 - Directional signage to the nearest thoroughfare.
 - Maximizes the hours of operation.
 - Staffed by a fueling station attendant.
 - Inclusive of a self-serve, menu-driven dispenser that does not require Personal Protection Equipment (PPE).
 - Provides customer experience for fueling comparable to the existing gas station where the hydrogen fueling station is proposed to be located.

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- The number of vehicles that can be filled with hydrogen simultaneously. Stations that can fill greater numbers of vehicles simultaneously will score higher.
- The proposed station plan includes an emergency backup plan in the case of station failure.

Innovation (20 points): Proposals will be evaluated on the degree to which...

- The proposed project includes innovation(s) or advanced features, including but not limited to:
 - Unique or advanced features of the project or hydrogen fueling station technology.
 - How the project supports the development of a hydrogen fueling infrastructure system in California that is more cost-efficient, more capable of meeting users' needs, and/or more capable of utilizing renewable hydrogen. Proposals exceeding 33% renewable hydrogen through direct physical pathways, support development of a hydrogen fueling infrastructure system in California that is more cost efficient, or are more capable of meeting users' needs will score higher.
 - The design and capability of the hydrogen station to scale up ("scalability") or otherwise adapt as demand for hydrogen fuel increases.
 - Use of independent hoses that work with one dispenser.
 - Use of two independent dual pressure hoses.
 - Station that can be relocated will score higher.

Sustainability (30 points): Proposals will be evaluated on the degree to which...

- The proposed project helps to achieve substantial reductions of greenhouse gas (GHG) emissions associated with California's transportation system to help meet the California Air Resources Board's (ARB) identification of the statewide greenhouse gas emissions limit to be achieved by 2020 (which can be found at www.arb.ca.gov/cc/implementation/implementation.htm). Proposals with greater GHG emission reductions will score higher.
- The proposed project maximizes the efficient use of water through water recycling/reclaiming techniques.
- The proposed project preserves and enhances the use of natural resources in the State and promotes superior environmental performance of alternative and renewable fuels.

Changes relative to PON-12-606:

- 1) Station Location Area scoring criterion has been eliminated.***
- 2) Market Viability and Station Performance scores increased.***
- 3) Minimum score under Qualifications required to be eligible.***

21. California Environmental Quality Act (CEQA)

Applicants must complete a CEQA form (provided with the Final Solicitation) for each proposed hydrogen fueling station.

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The Energy Commission must ensure that the appropriate level of environmental review under CEQA is complete prior to advancing a project to a Business Meeting for Commission approval.

Thus, no award can be approved, nor can any grant be executed, until contact with the local lead agency is made (and evidence of this contact is provided to the Energy Commission) and the project, as proposed, is described to the lead agency as a potential. The Governor's Office of Business and Economic Development is available to provide CEQA assistance. Contact:

Mr. Frank Ramirez, Senior Permit Assistant Specialist
Office of Business and Economic Development
1400 Tenth Street, 2nd Floor
Sacramento, CA 95814
Phone: 916-322-0563
Fax: 916-322-0693
Email: Frank.ramirez@gov.ca.gov.

The Applicant shall provide copies of email or letters or both as evidence. The applicant must also provide an estimation of the potential or actual impacts the project may have on the surrounding environment. A CEQA schedule / plan activities must be submitted for each proposed station.

NOTES: A proposal can be for a future hydrogen fueling station at an existing fueling station. A proposal can also be at a location without an existing fueling station; however, in this case the proposal must be accompanied by a completed CEQA analysis.

22. Permitting

Applicants must include information in their narrative that describes their plans to obtain permits for hydrogen fueling stations. The Governor's Office of Business and Economic Development is available to provide permitting assistance. Contact:

Mr. Frank Ramirez, Senior Permit Assistant Specialist
Office of Business and Economic Development
1400 Tenth Street, 2nd Floor
Sacramento, CA 95814
Phone: 916-322-0563
Fax: 916-322-0693
Email: Frank.ramirez@gov.ca.gov.

23. Letter(s) of Support/Commitment

Letter(s) of support or commitment will not be counted against the page limitations in the Final Solicitation.

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- A. **Site Owner/Operator (MANDATORY):** Proposals must include a letter of support from the owner/operator of the site where the hydrogen fueling station or upgrade project is proposed. The letter shall be signed by the site owner or representative who is duly authorized to commit the site to building a hydrogen fueling station (or to implement an upgrade) at their site in collaboration with the project developer. The letter shall also contain a telephone number to allow the Energy Commission to contact the site owner or representative to confirm the commitment and authority to commit to the proposed project.
- B. **Third-Party Match Share Commitment (MANDATORY, if applicable):** For match share committed by a third-party, i.e., other than the match share committed by the Applicant, Applicant must submit a letter of commitment from each match share partner identifying the source(s) and availability of match funding.
- C. **Key Project Partners (MANDATORY, if applicable):** Proposals shall include a letter of commitment from every key project partner. The letter of commitment shall include complete contact information so the Energy Commission is able to efficiently contact the letter writer, as necessary.
- D. **Third-Party Letters of Support (OPTIONAL):** Applicants are encouraged to submit additional letter(s) of support that further substantiate the estimated demand and/or the potential benefits of the proposed station. Third-party letters of support can be provided by, but are not limited to: air districts, state or federal agencies, original equipment manufacturers (OEMs), renewable hydrogen fuel providers, local safety officials, fleet operators, and any other organizations.

24. Data Collection

Applicants that are awarded will be required to collect and submit station operation and performance data for a minimum of 36 months following station construction completion. The specific requirements will be contained in the agreement's Scope of Work. ***Data collection duration increased relative to PON-12-606.***

25. Milestones for Planning, Constructing, and the Initial Operation for the Planned Hydrogen Fueling Stations

The Applicant shall include descriptions of the milestones they intend to meet for the hydrogen fueling stations(s). The milestones shall address progress in the planning, constructing, and the initial operation for the planned hydrogen fueling stations. Funding recipients missing critical deadlines may be recommended for agreement termination. Funding from terminated agreements may be utilized to fund the next eligible Proposal under this solicitation.

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Funding recipients missing critical deadlines may be recommended for agreement termination. Funding from terminated agreements may be utilized to fund the next eligible Proposal under this solicitation.

26. References: Relevant Laws, Regulations, Reports and Other Documents

Applicants must comply with all applicable federal, state, and municipal laws, rules, codes, and regulations, including but not limited to:

- Specifications for Hydrogen Used in Internal Combustion Engines and Fuel Cells: California Code of Regulations, Title 4, Division 9, Chapter 6, Article 8, Sections 4180 and 4181.

Further, Applicants may want to familiarize themselves with the following documents when responding to this solicitation:

- 2012-13 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP)
www.energy.ca.gov/2012publications/CEC-600-2012-001-CMF/CEC-600-2012-001-CMF.pdf.
- 2011-12 Investment Plan Update for the ARFVTP
www.energy.ca.gov/2011publications/CEC-600-2011-006/CEC-600-2011-006-CTF.pdf.

The above-referenced ARFVTP Investment Plans are on display and available for review in the Energy Commission's Library. Library hours are Monday - Friday from 8:30 a.m. to 4:30 p.m., closed for lunch: 12:00-1:00 p.m. The Library is located at: California Energy Commission, 1516 Ninth Street, First Floor, Sacramento, CA 95814, (916) 654-4292.

27. Questions During the Solicitation Process

During the solicitation process, questions of clarification about the Final Solicitation must be directed to the Commission Agreement Officer listed in the Final Solicitation. The questions and answers will also be posted on the Energy Commission's website at: <http://www.energy.ca.gov/contracts/index.html>.

Any verbal communication with an Energy Commission employee concerning the Final Solicitation is not binding on the State and shall in no way alter a specification, term, or condition of the solicitation. Therefore, all communication should be directed in writing to the Commissions Agreement Officer assigned to the solicitation.

28. Station Location Area Maps

The Station Location Area Maps follow.

2013 Hydrogen Station Solicitation
Station Location Areas
California Energy Commission

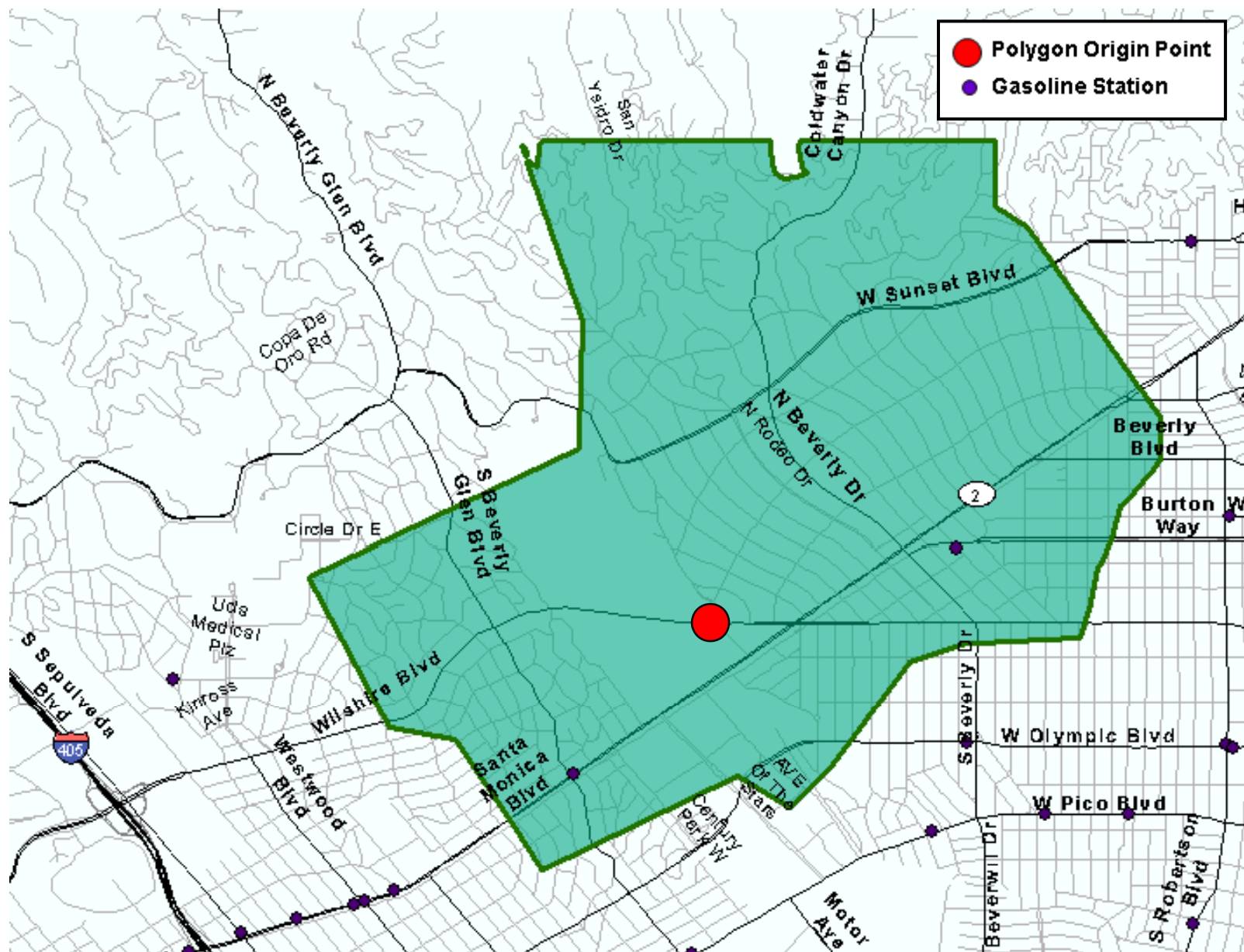
September 23, 2013

Primary Priority Station Location Areas

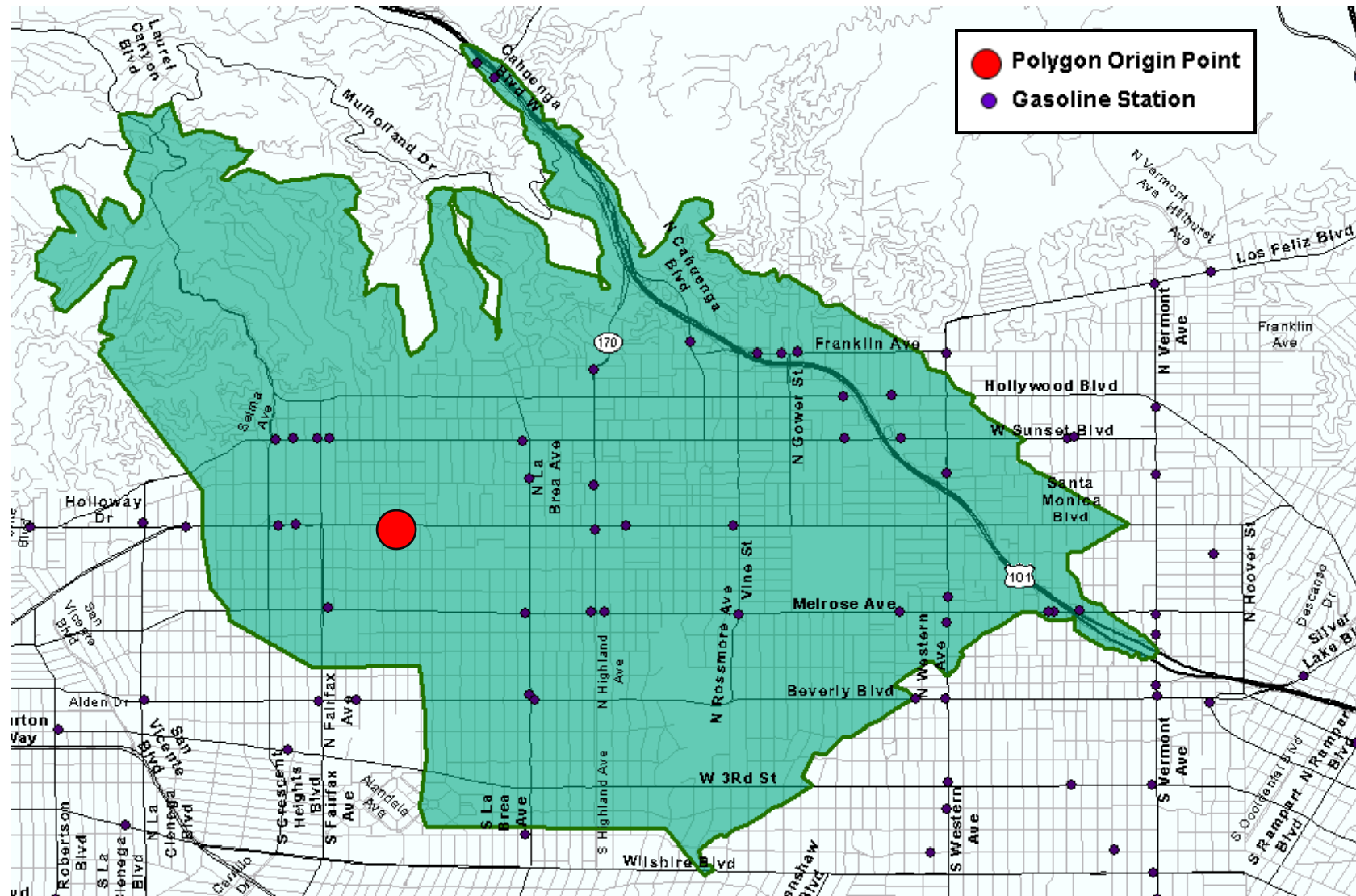
- (1) Beverly Hills/Westwood,
- (2) Hollywood/West Hollywood,
- (3) Pasadena,
- (4) San Diego #1,
- (5) San Francisco,
- (6) Torrance/Redondo Beach, and
- (7) Westminster/Huntington Beach

September 23, 2013

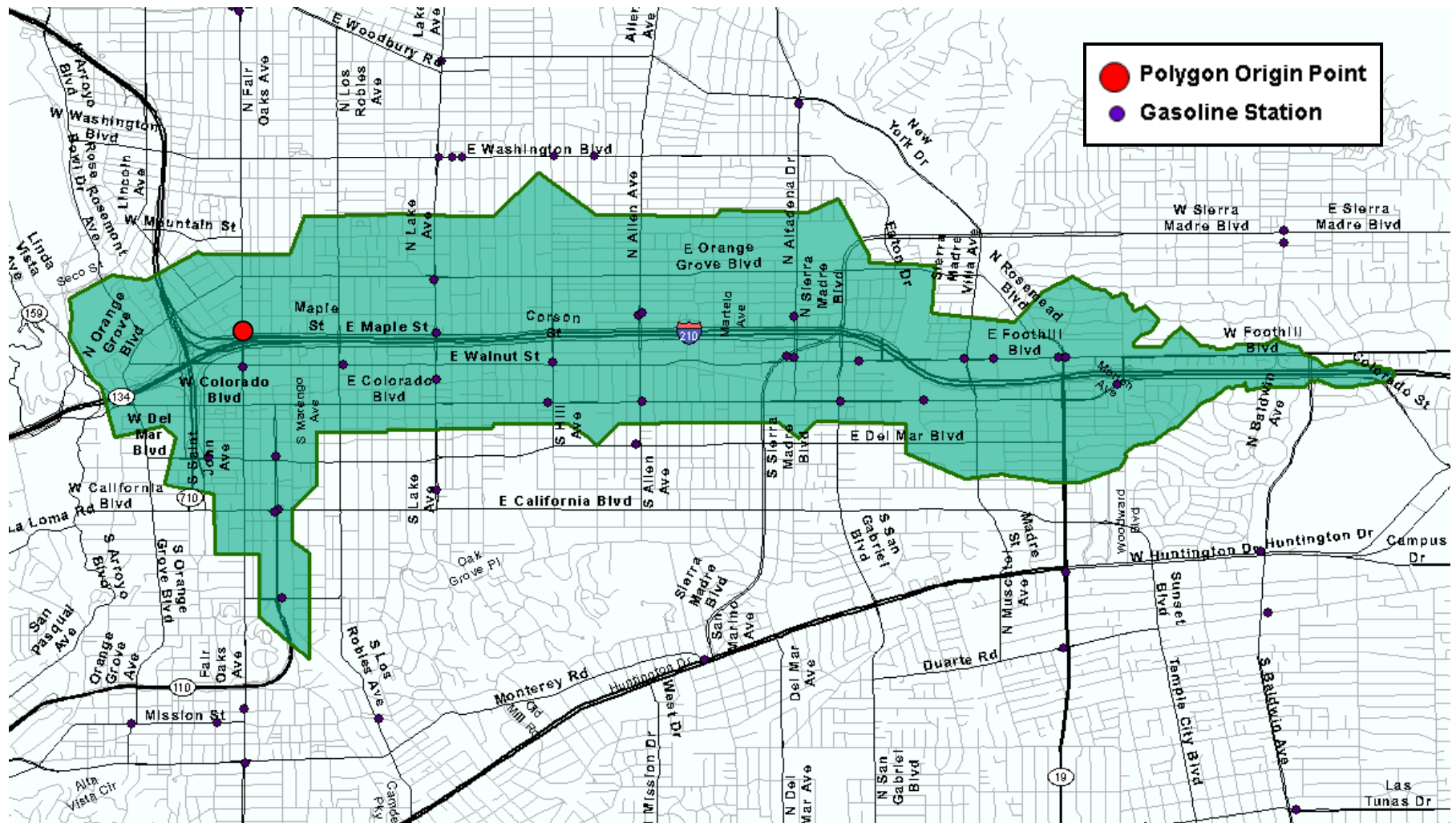
Beverly Hills/Westwood



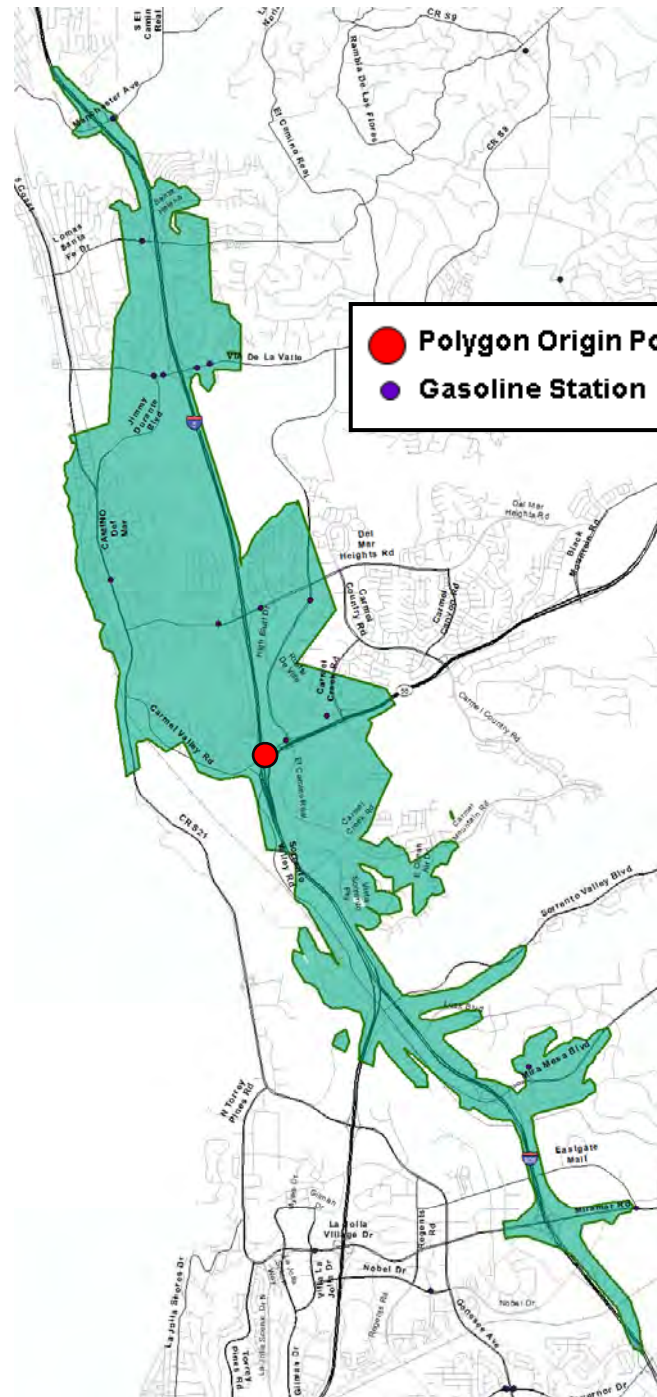
Hollywood, West Hollywood, Melrose



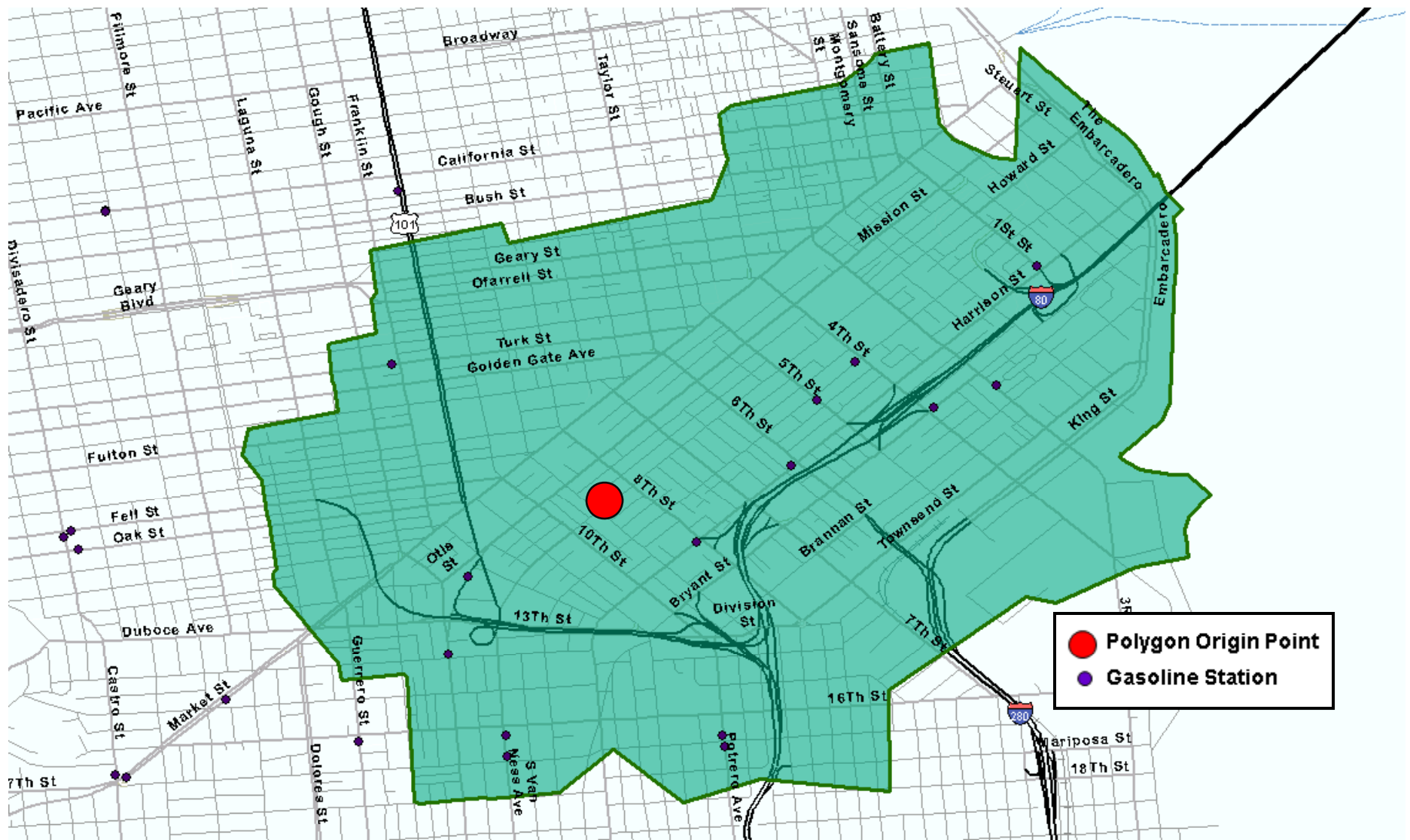
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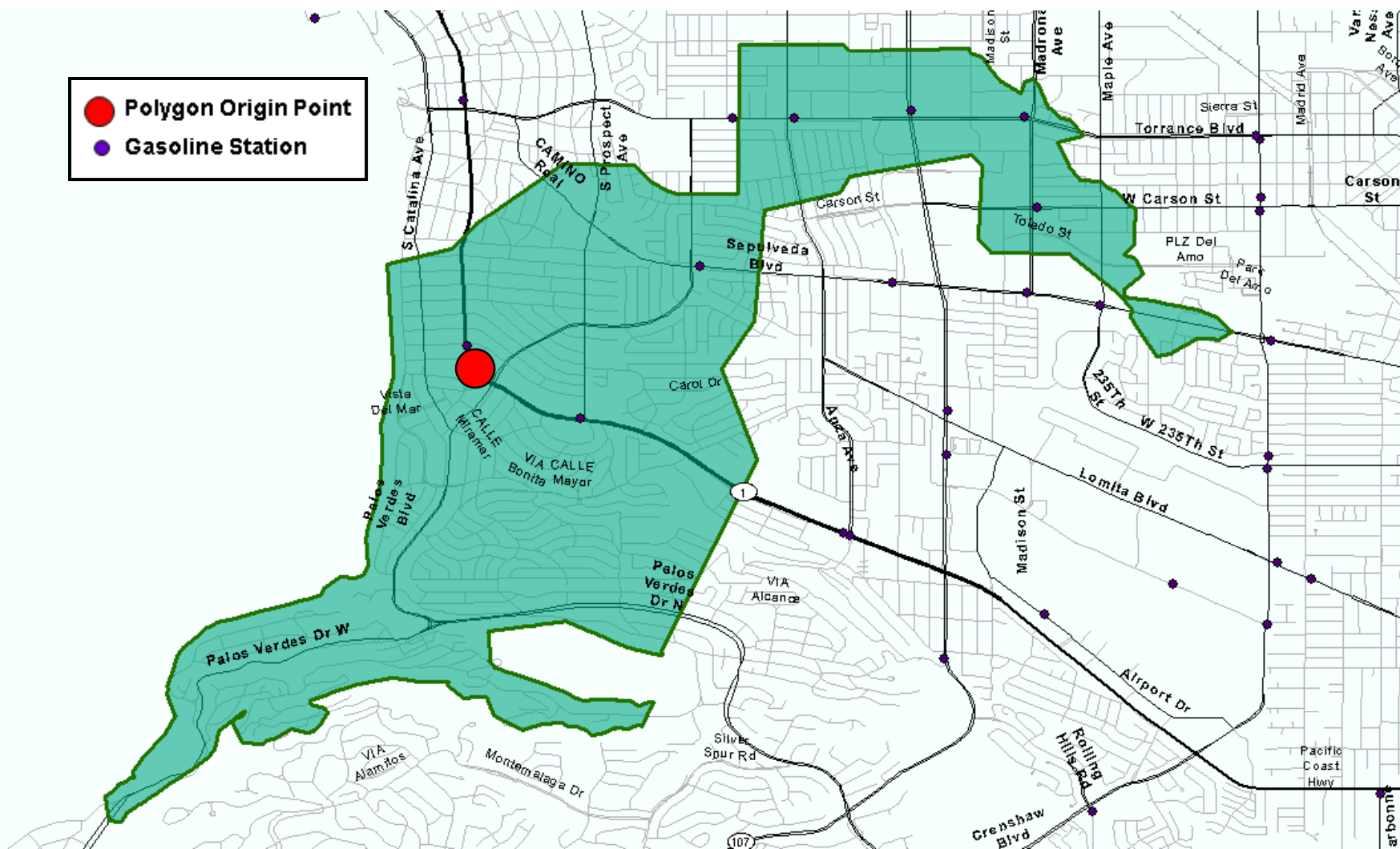
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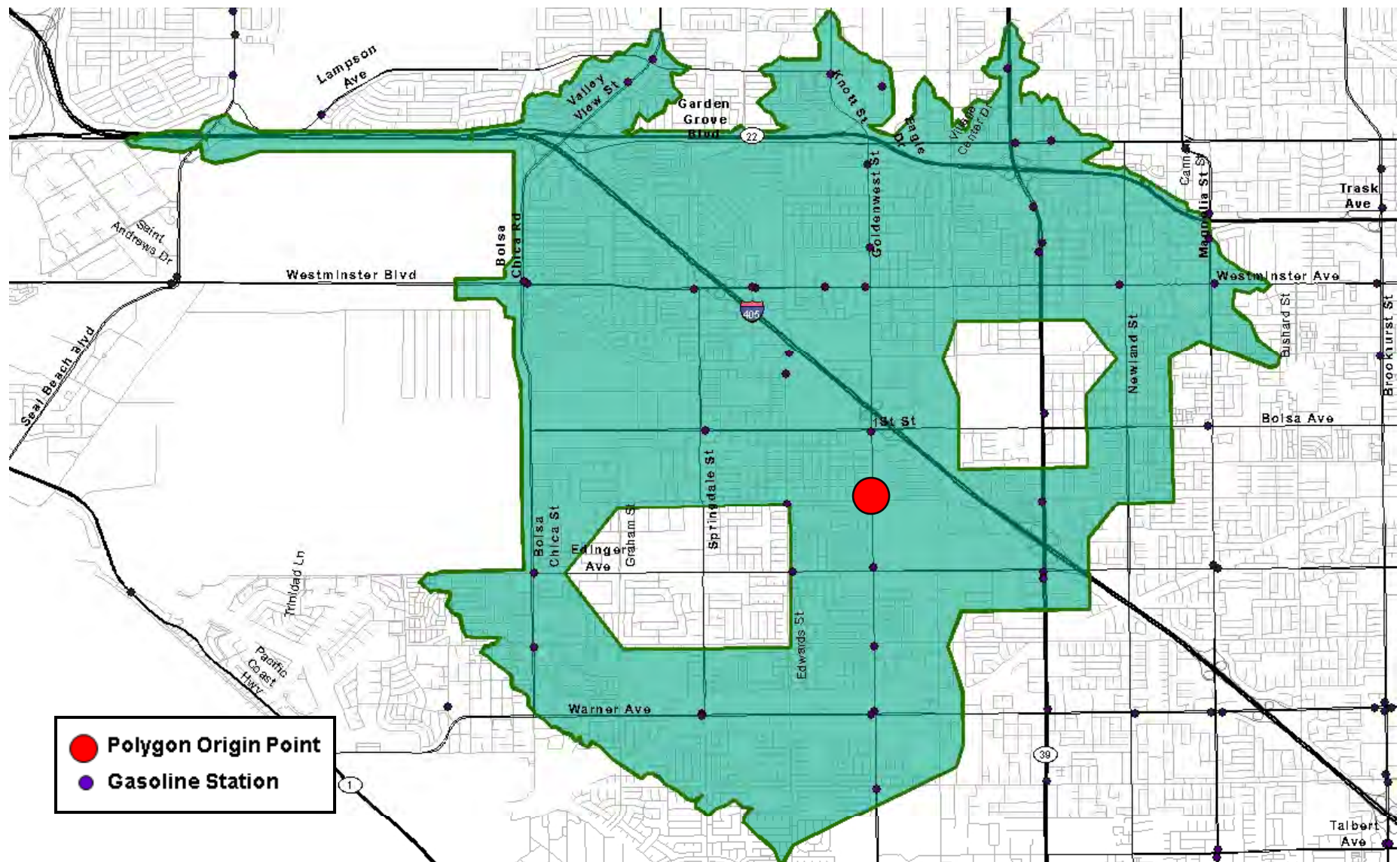
San Francisco



Torrance/Redondo Beach



Westminster/Huntington Beach

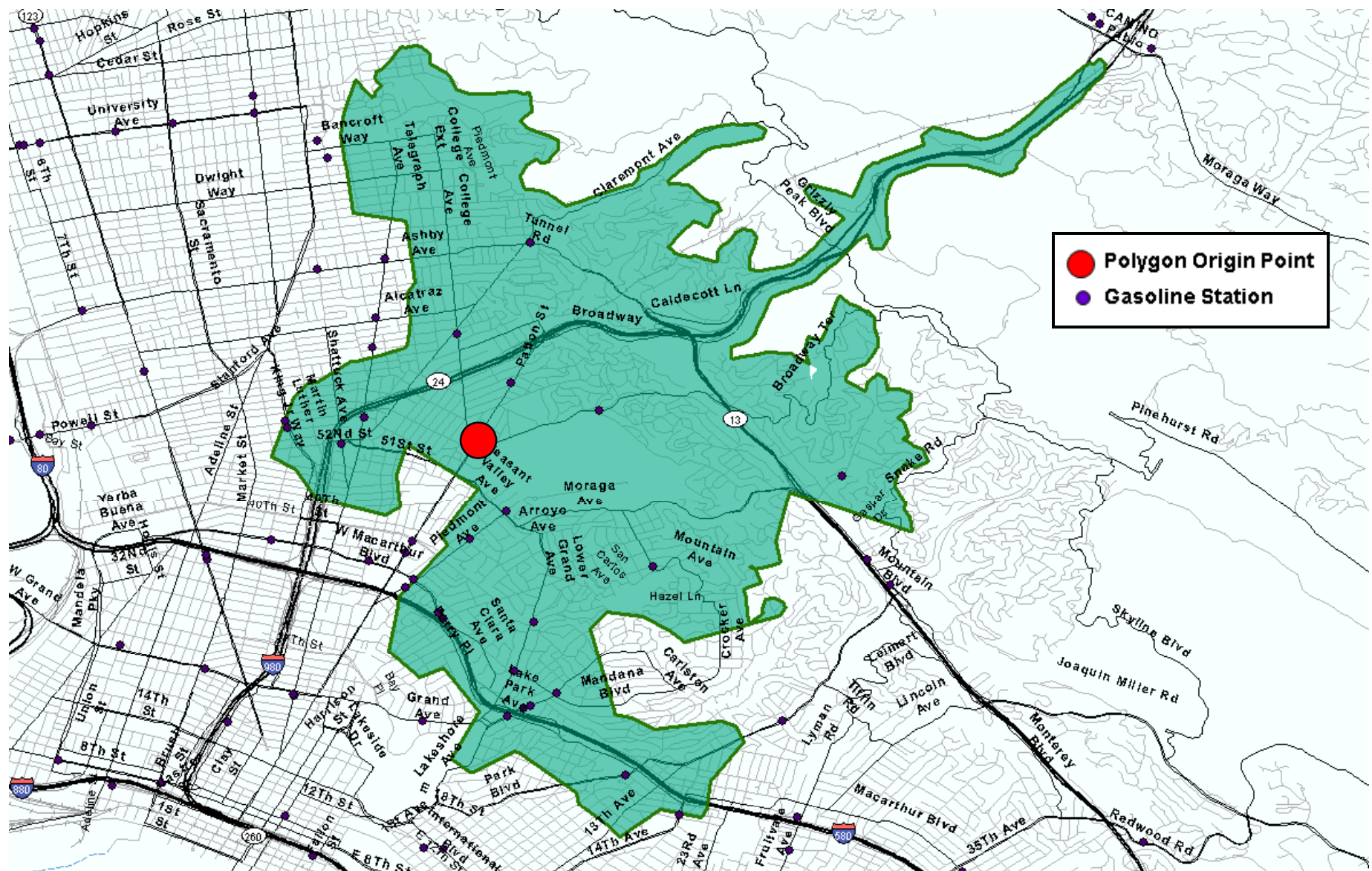


Secondary Priority Station Location Areas

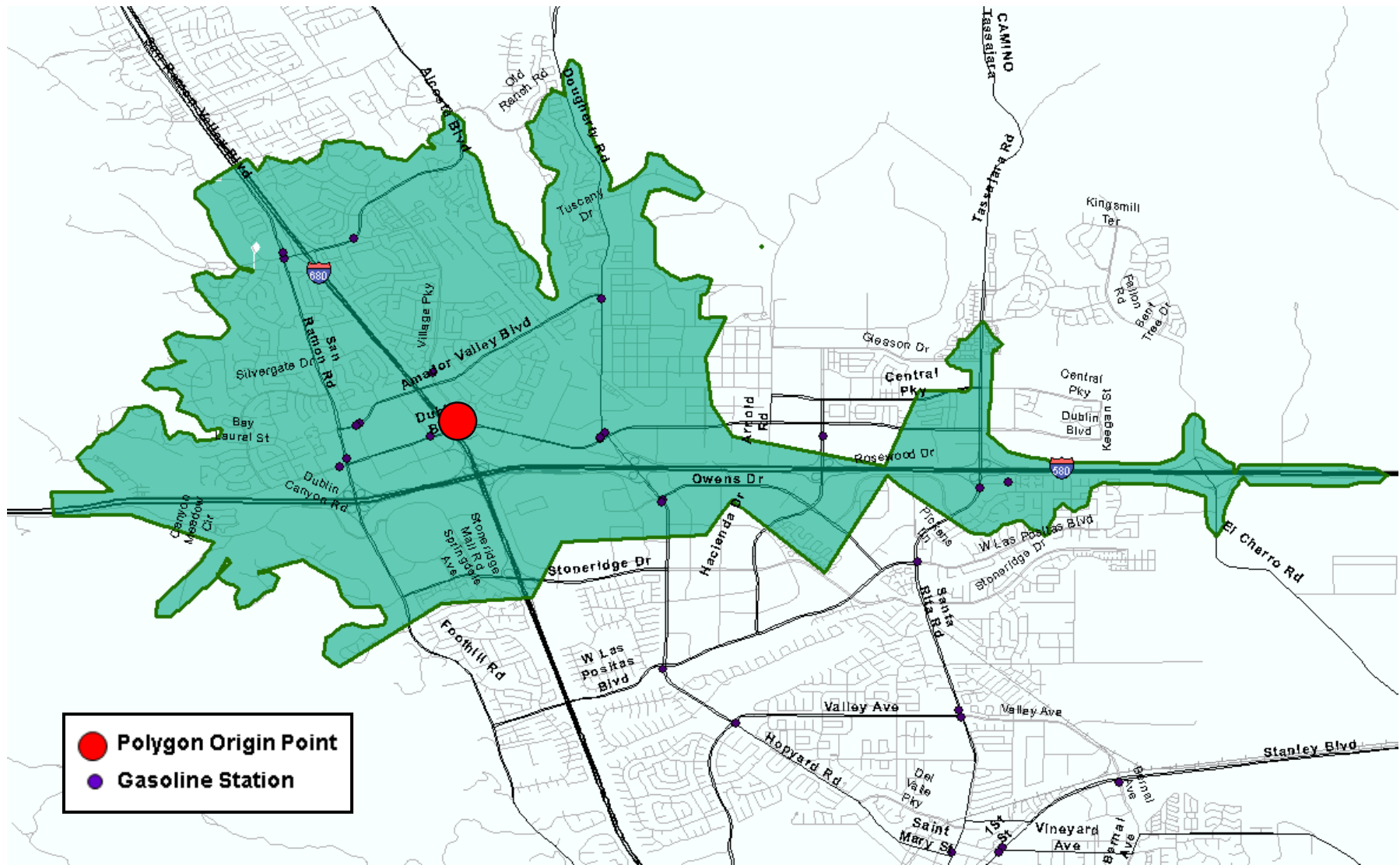
- (8) Berkeley/Oakland,
- (9) Dublin/Pleasanton,
- (10) Hayward,
- (11) Laguna Beach,
- (12) Los Altos/Los Altos Hills/Palo Alto,
- (13) Los Gatos,
- (14) Manhattan Beach/El Segundo,
- (15) Milpitas,
- (16) Pacific Palisades,
- (17) Sacramento,
- (18) San Diego #2 (La Jolla),
- (19) San Clemente,
- (20) Santa Barbara,
- (21) Woodside/Menlo Park/Atherton/Redwood City

September 23, 2013

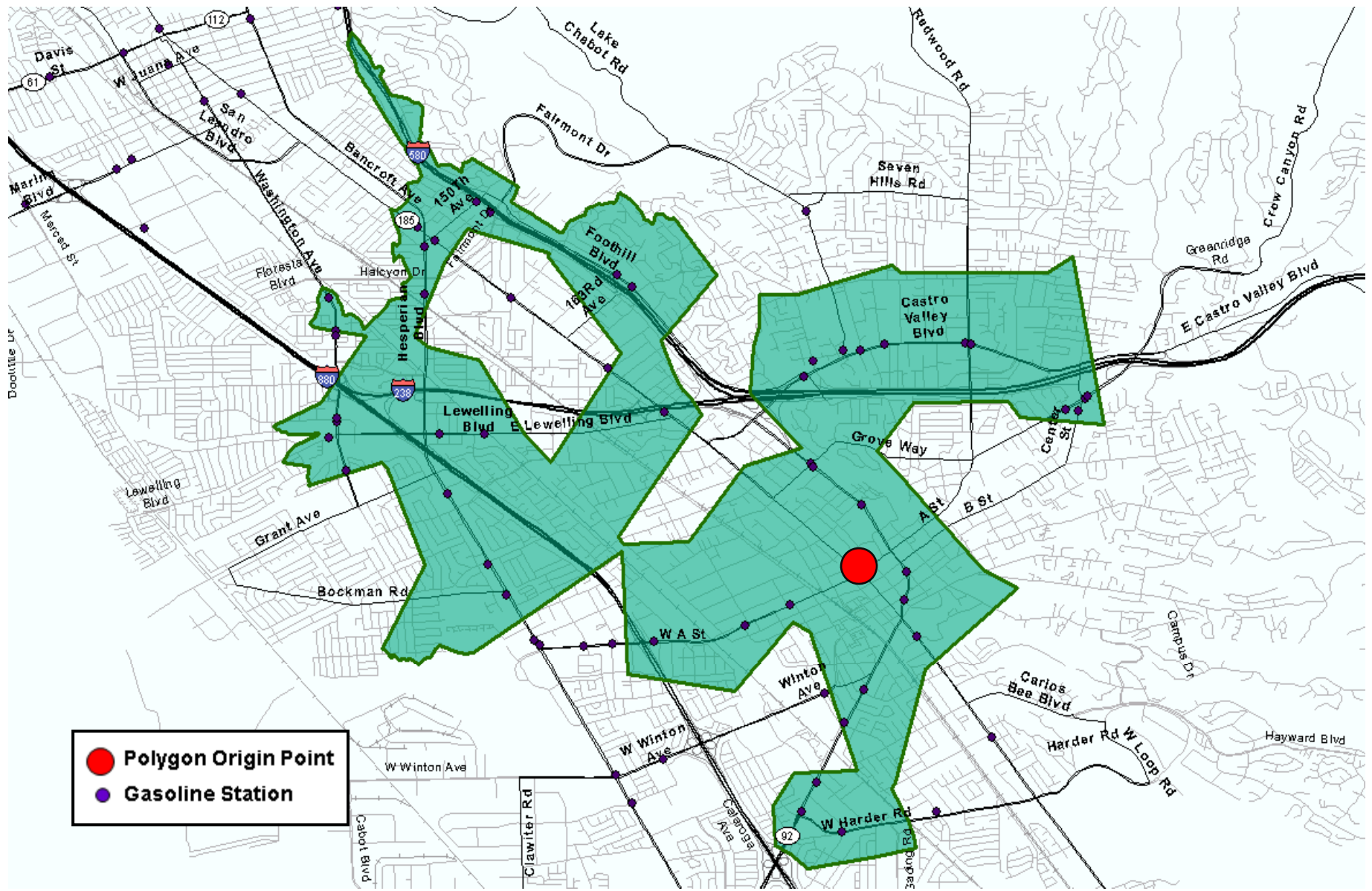
Berkeley/Oakland



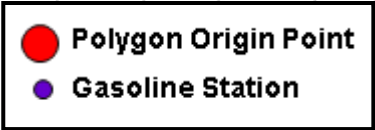
Dublin/Pleasanton



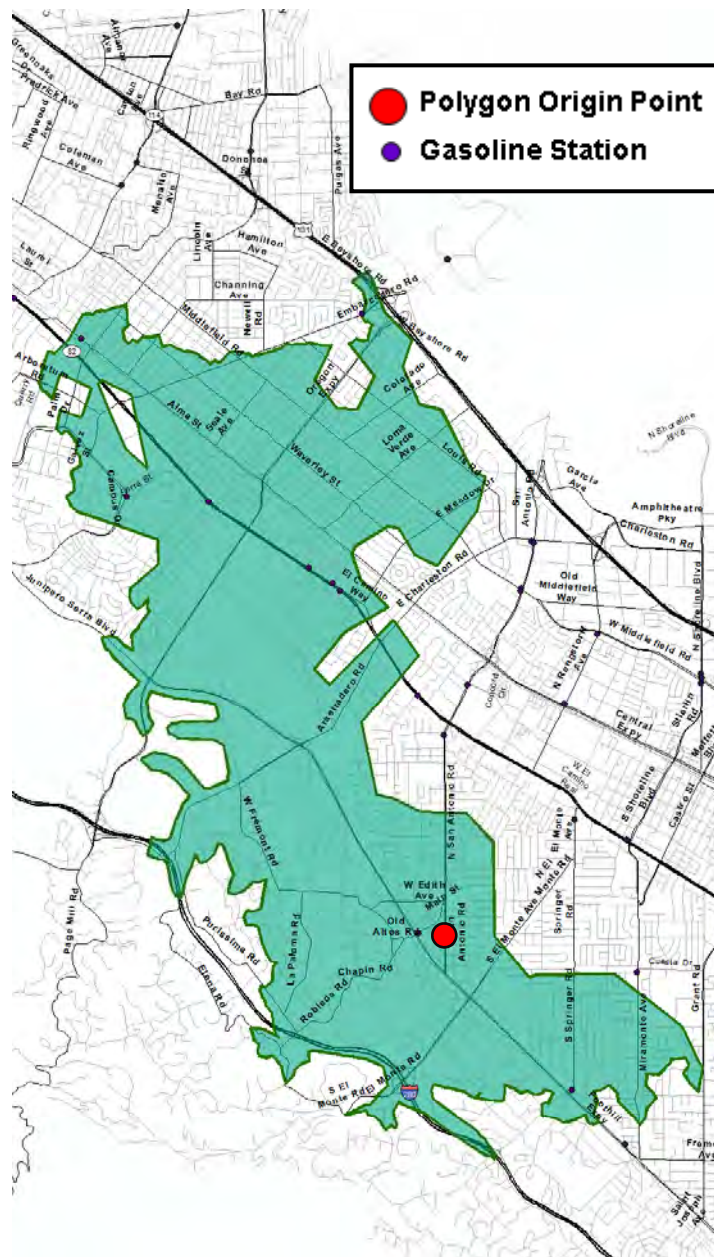
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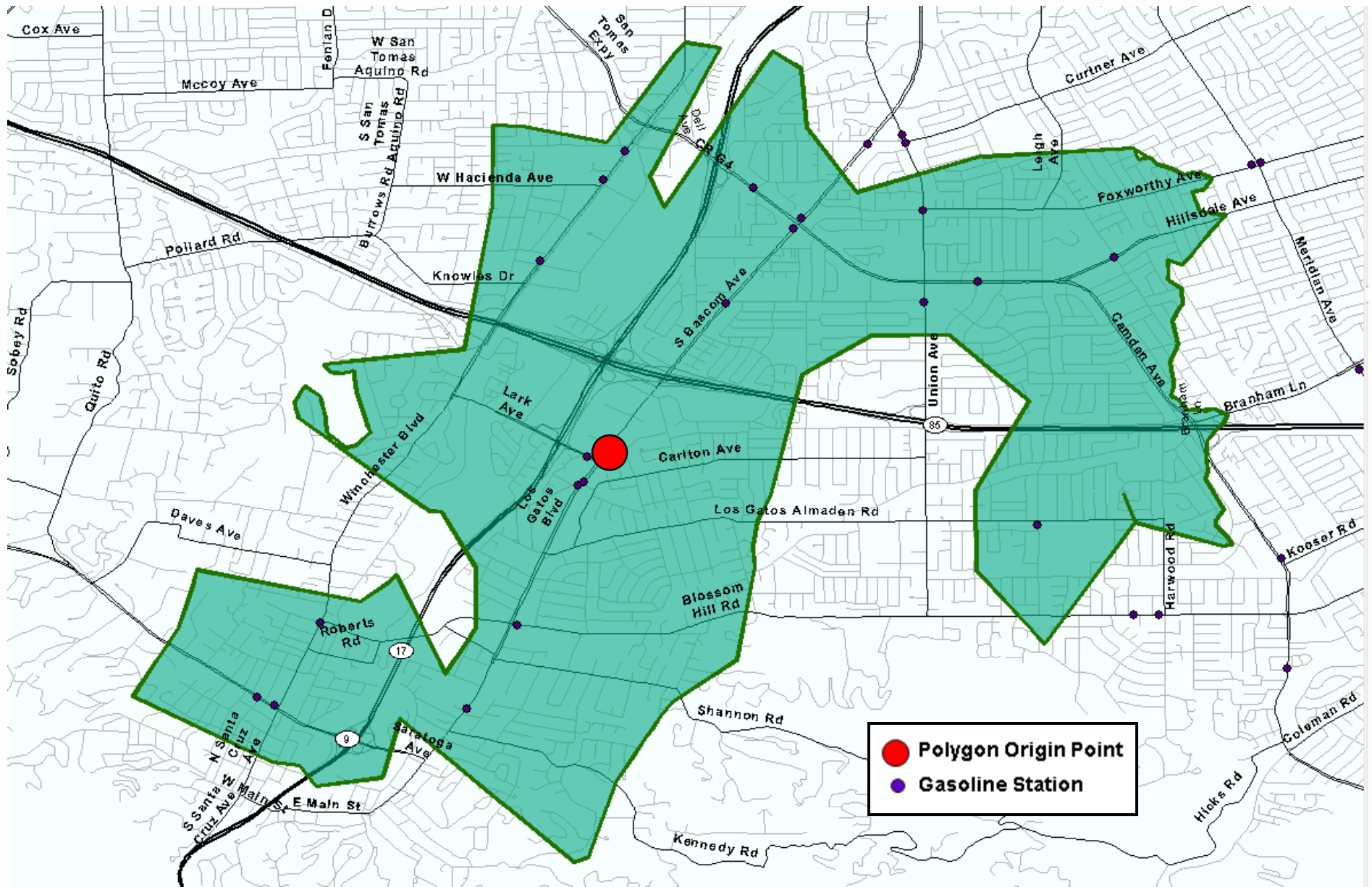
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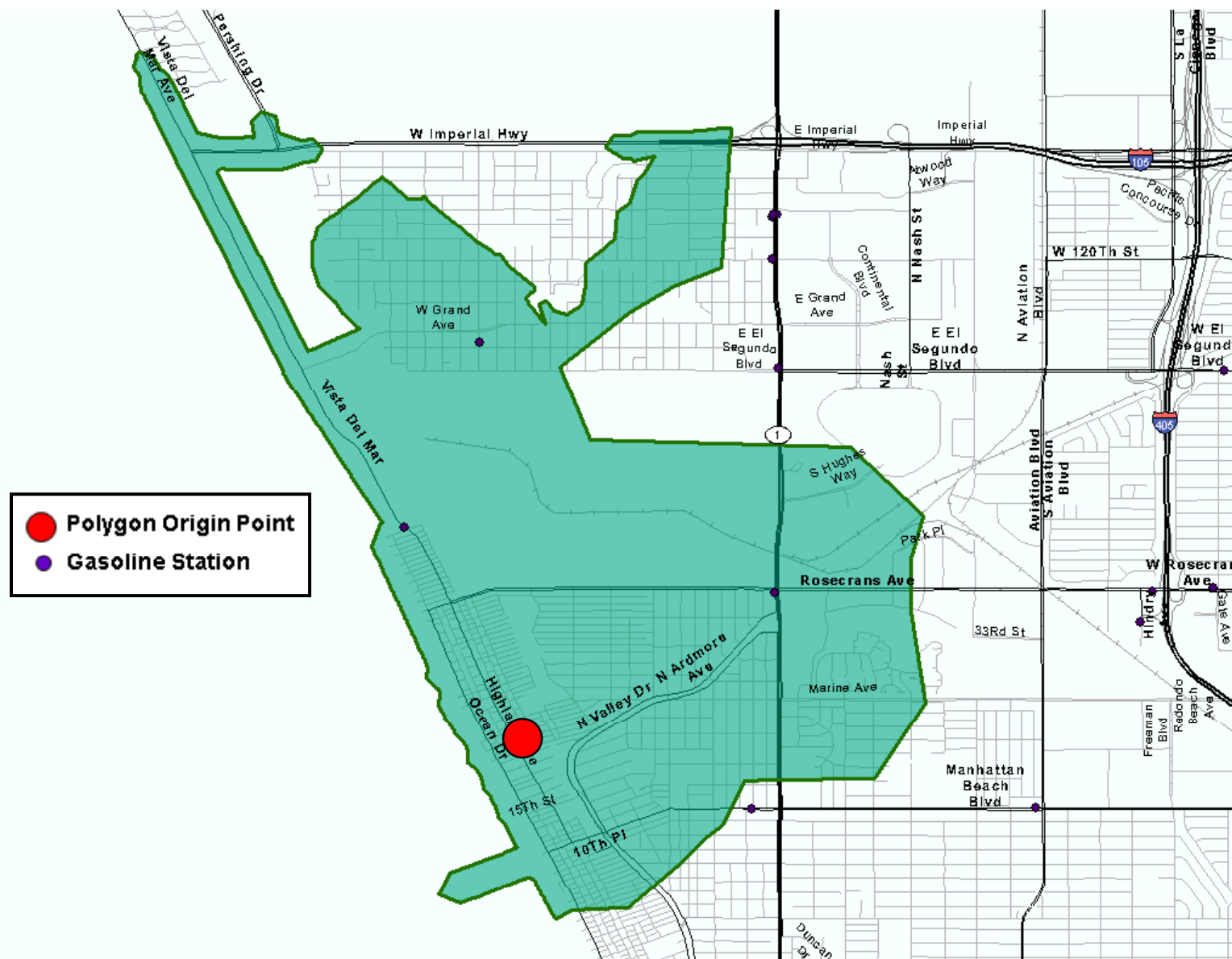
Los Altos, Los Altos Hills, Palo Alto



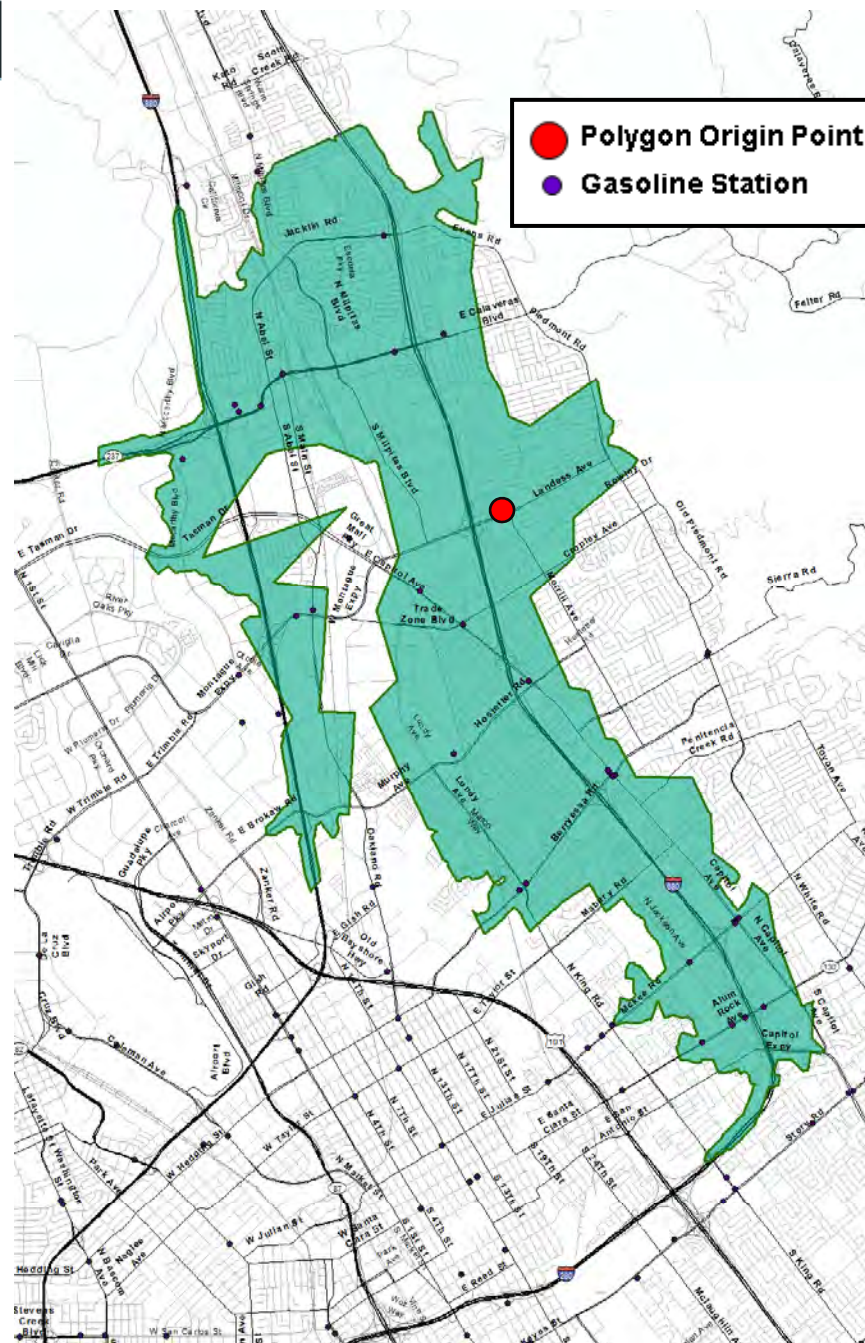
Los Gatos



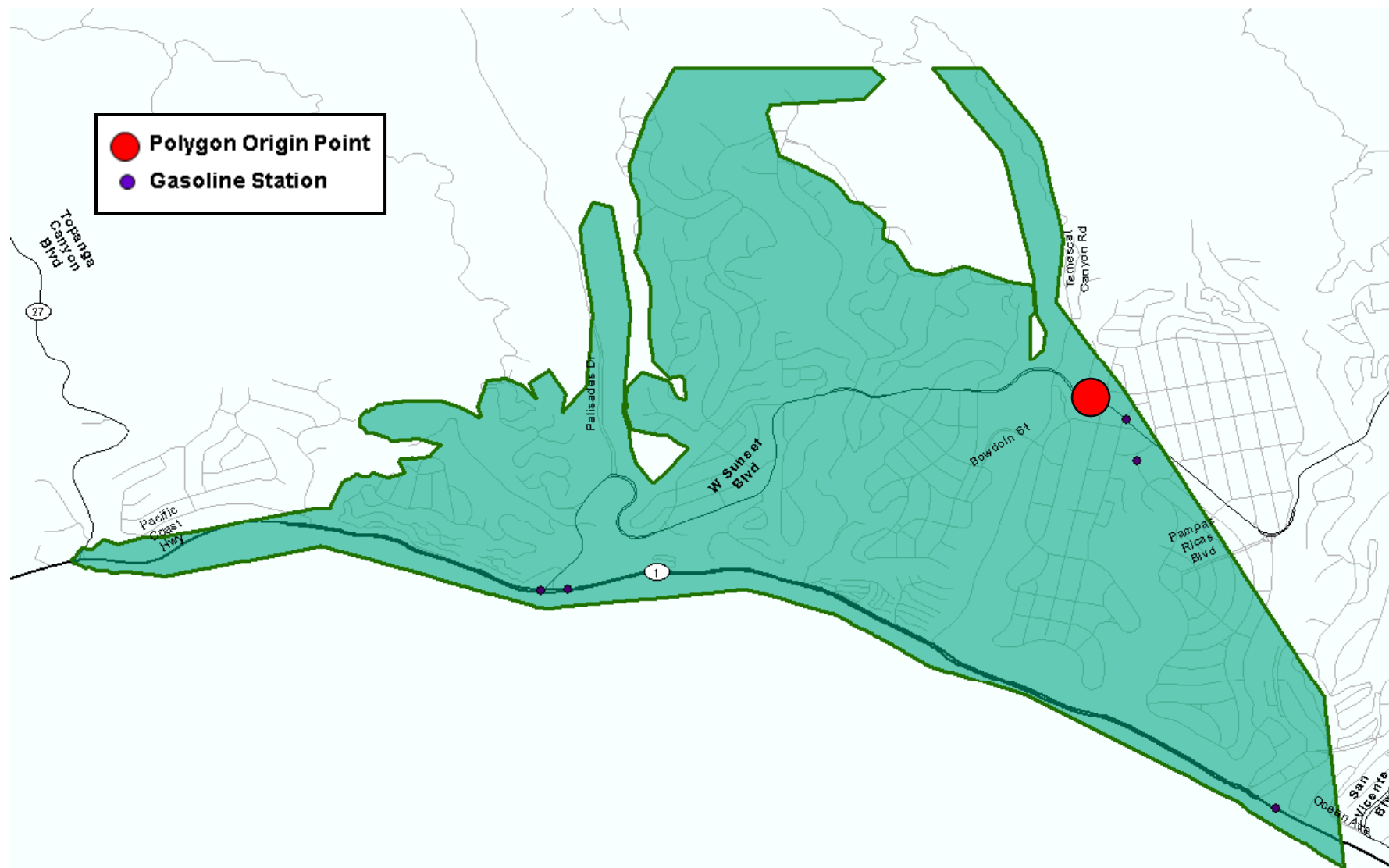
Manhattan Beach/ El Segundo



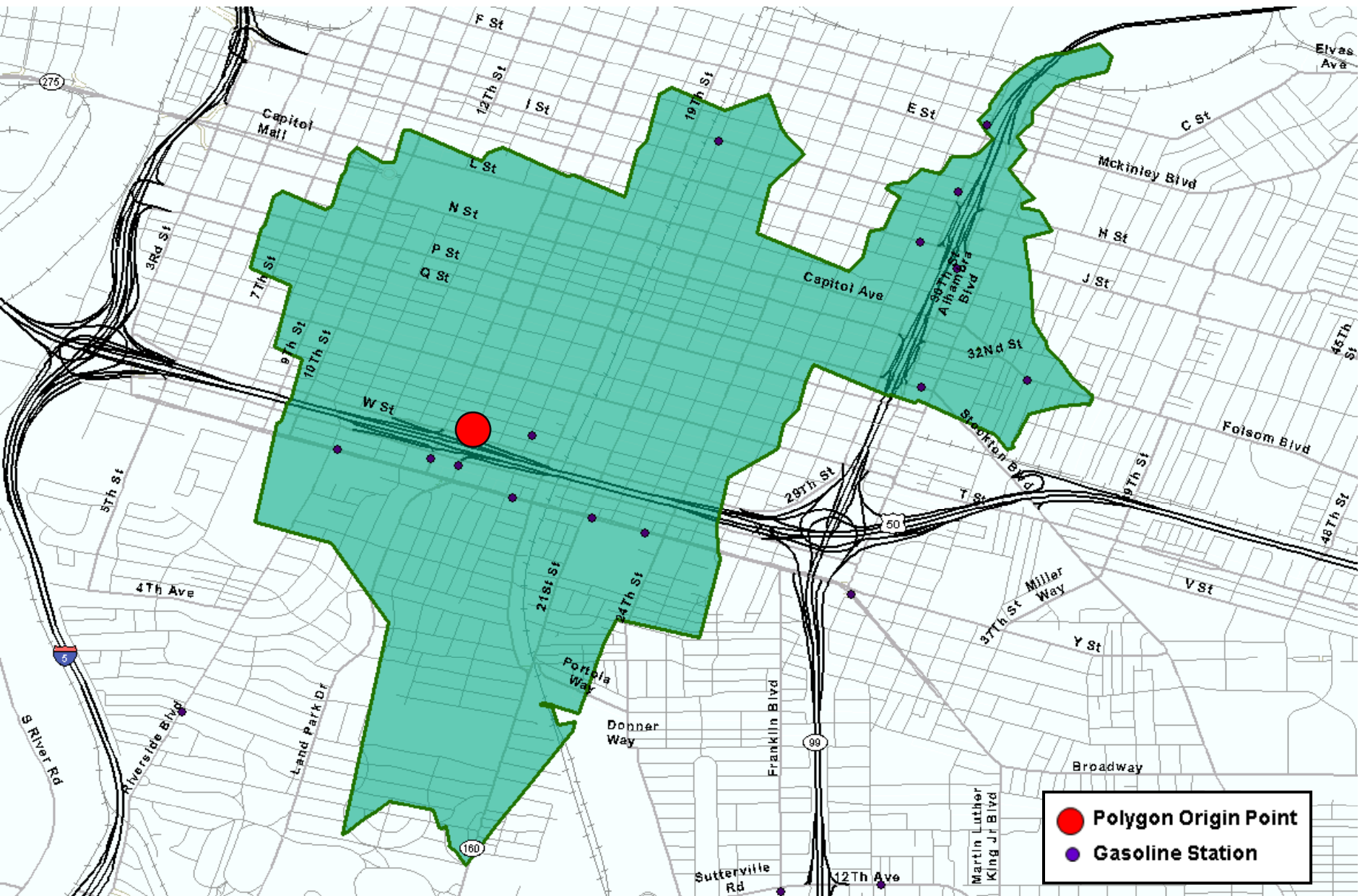
Milpitas



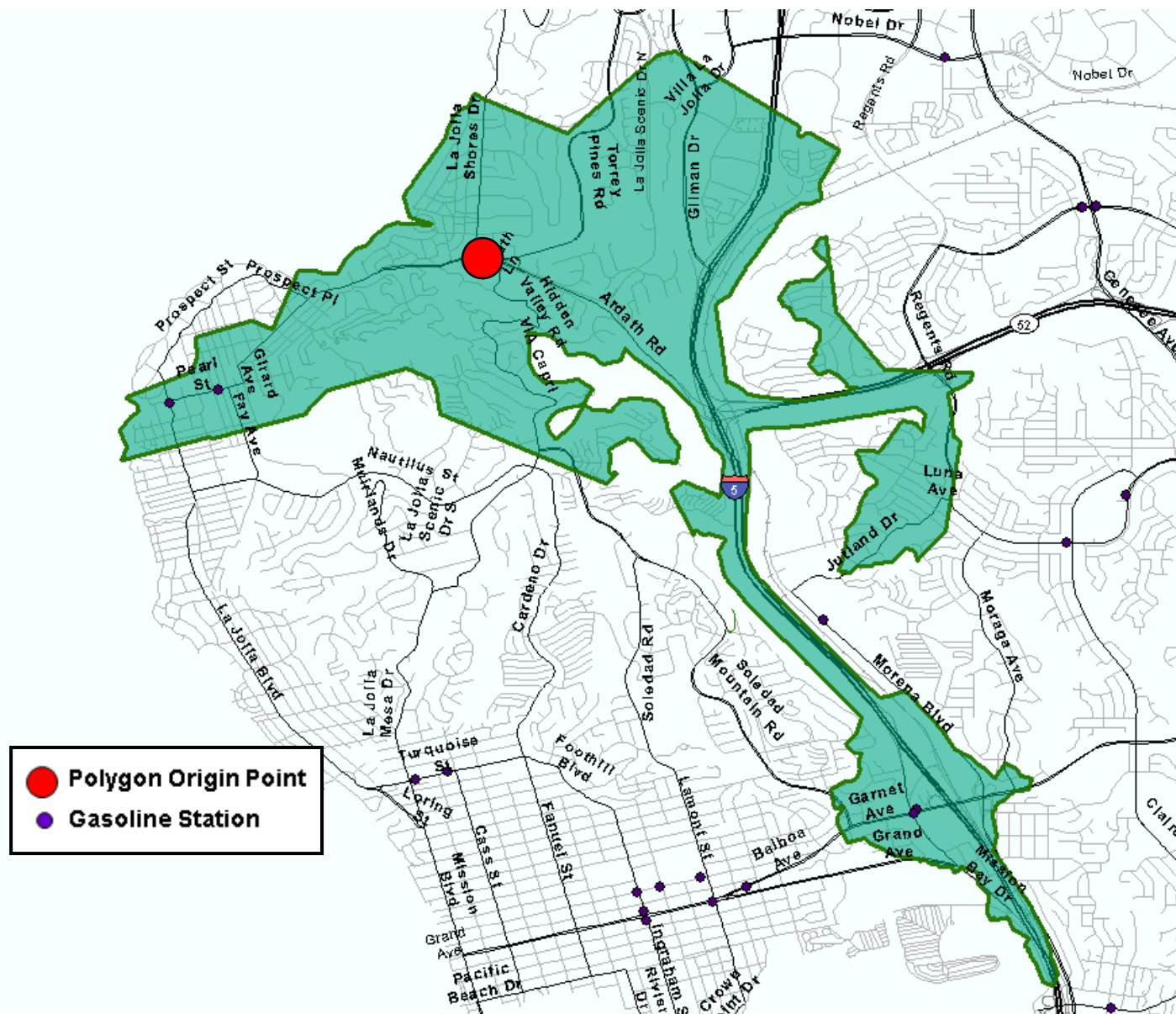
Pacific Palisades



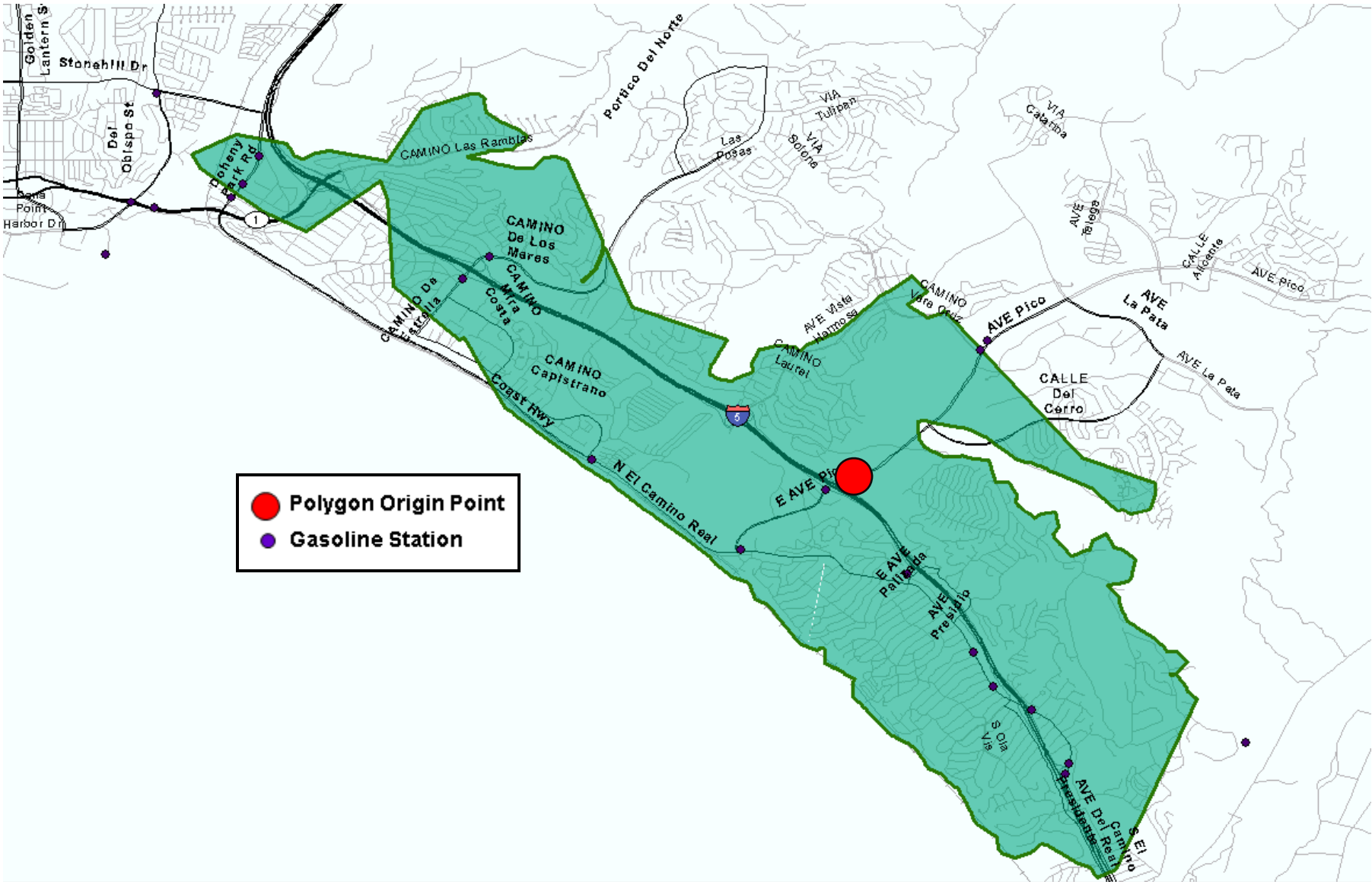
Sacramento



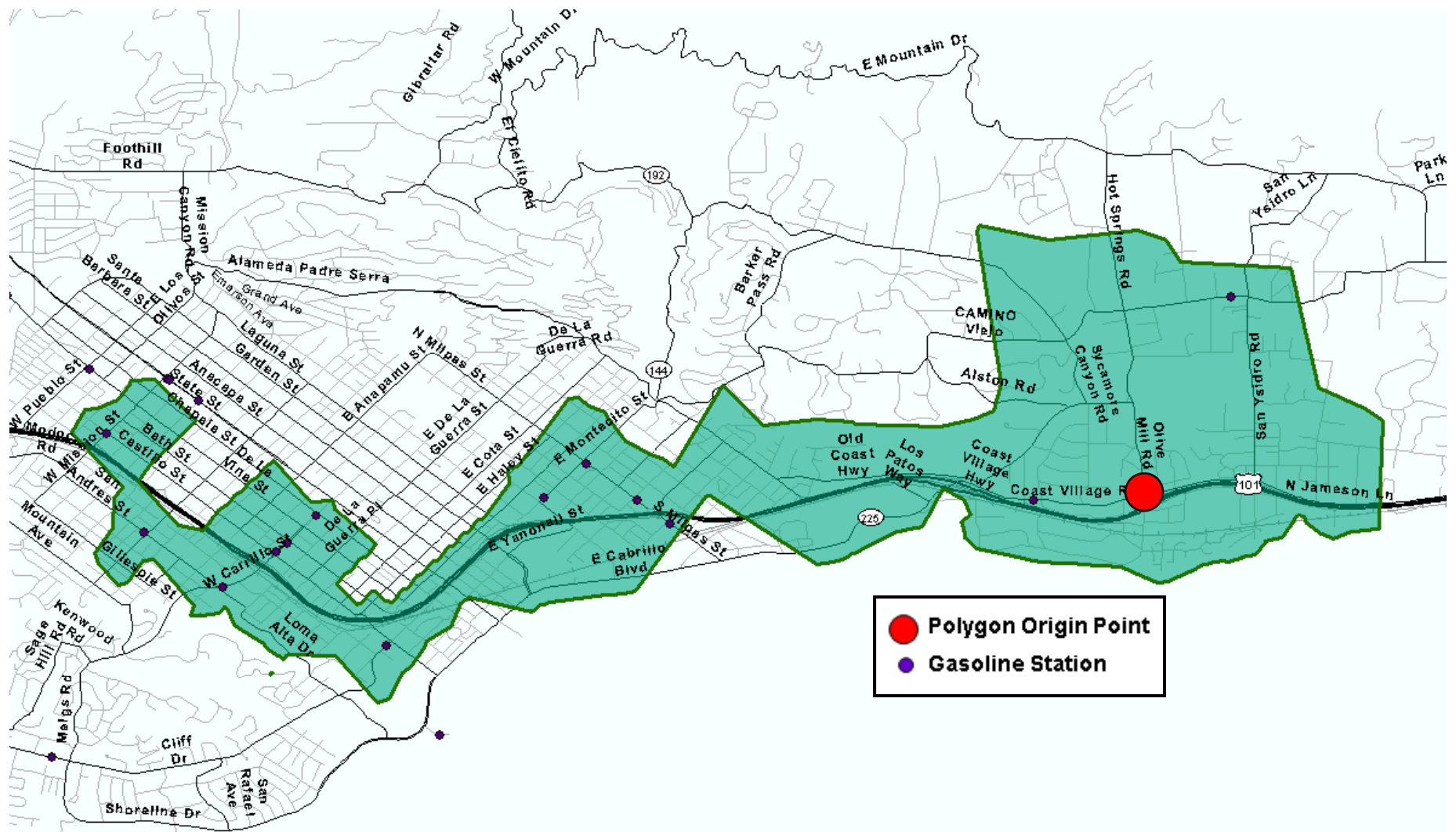
San Diego #2 (La Jolla)



San Clemente



Santa Barbara



Woodside, Menlo Park, Atherton, Redwood City

